



Minicam **Photography**

OCTOBER, 1947

25 CENTS

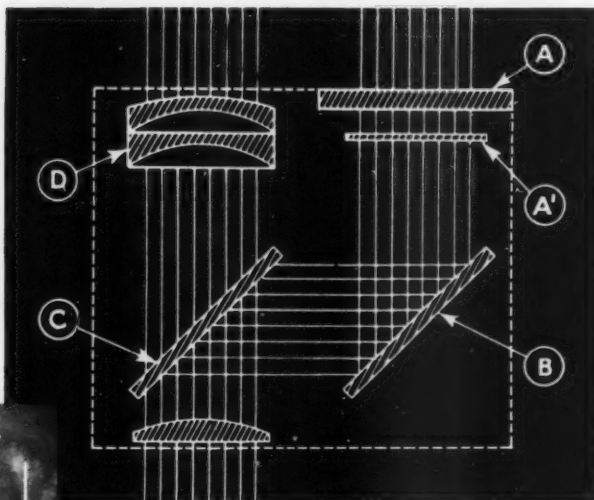
30 CENTS IN CANADA

In this issue

HOW TO BUILD AN ENLARGER • LET'S PHOTOGRAPH KIDS NATURALLY
THE PHILADELPHIA MODELS' GUILD • FOOTBALL CAMERA TECHNIQUE

argus 21 *Markfinder*

does it
with
Mirrors..



The cross-section above shows the "Markfinder" principle. Light passing through ground glass (A) and the reticle (A') is reflected by mirrors (B) and (C) and is projected into the field of view through distortionless doublet finder objective (D). You see the picture area outlined with a white line... always the same whatever your eye position.

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Minicam Photography

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CONTENTS, OCTOBER, 1947

Articles

NAMES MAKE NEWS.....	JACK WATERS	26
HOW TO BUILD AN ENLARGER.....	HERBERT E. HAFFTER	32
LET'S PHOTOGRAPH KIDS NATURALLY.....	GEORGE R. KARFIOL	42
TRIPLE FLASH FOR COLOR.....	E. L. MANTIE	46
FOOTBALL CAMERA TECHNIQUE.....	DOUGLAS G. KILGOUR	47
HIGH SCHOOL PHOTOGRAPHIC AWARDS.....		52
PARIS IS PEOPLE.....	RALPH SAMUELS	60
BUILD YOUR OWN DARKROOM BALANCES.....	E. PETER SMITH	68
LET'S CHECK YOUR FOCUS.....	CHARLES SMITH	73
MODELS' GUILD OF PHILADELPHIA.....	WALTER IAN FISCHER	76
OCTOBER PICTURE SECTION.....		86
\$37.90 DARKROOM.....	SIDNEY ROSS	94

Movie Features

MATHEMATICS FOR MOVIE MAKERS.....	ORMAL I. SPRUNGMAN	84
TEN COMMANDMENTS OF MOVIE MAKING.....	LEO J. HEFFERNAN	121
MOVIE NEWS AND RELEASES.....		116

Departments

THE LAST WORD.....	6
PHOTO MARKETS.....	12
AXEL'S ANGLES.....	96
PHOTO DATA.....	98
NEW PRODUCTS.....	100
GADGETS, KINKS AND SHORT CUTS.....	112
CAMERA CLUB NEWS AND IDEAS.....	122
EXHIBITION CALENDAR.....	152



High School Awards
(See page 52)

Cover by AVERY SLACK

MINICAM PHOTOGRAPHY (TITLE REG. U. S. PAT. OFF.) PUBLISHED AT 22 E. 12TH ST. CINCINNATI, O. PUBLISHED MONTHLY BY THE AUTOMOBILE DIGEST PUBLISHING CORP. YEARLY SUBSCRIPTION, \$2.50 IN U. S. A. AND POSSESSIONS, CANADA AND COUNTRIES IN PAN-AMERICAN POSTAL UNION, \$3.00. ELSEWHERE, \$3.50. SINGLE COPIES, 25c. EASTERN ADVERTISING OFFICE: EVERETT GELLERT, 43 PARK AVENUE, NEW YORK CITY, TELEPHONE LEX. 2-6182. MIDWEST ADVERTISING OFFICE: BERNARD A. ROSENTHAL, 333 N. MICHIGAN, CHICAGO, ILL., TELEPHONE CENTRAL 3038. WEST COAST OFFICE: SWAIN ASSOCIATES, 639 SO. WILTON PL., LOS ANGELES 5, CALIF., PHONE FITZROY 6146. ENTERED AS SECOND CLASS MATTER AT CINCINNATI, OHIO, U. S. A., MARCH 21, 1938, UNDER THE ACT OF MARCH 3, 1879, EST. 1937.

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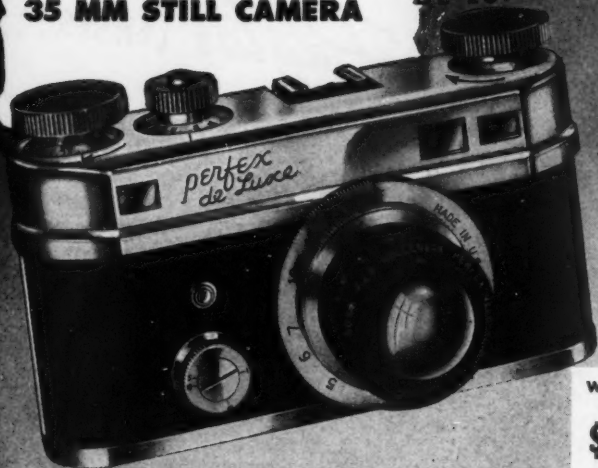
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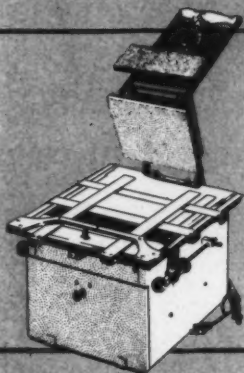


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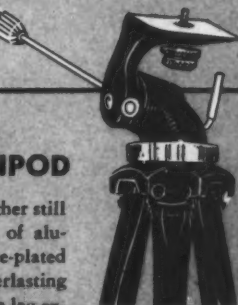
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By HOWARD BARBITT

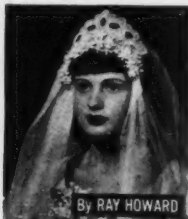
1. Compound of many elements. the SMP formula for a bright foto future doesn't come in bottles—but can be acquired at the famed SCHOOL OF MODERN PHOTOGRAPHY. Witness

HOWARD BARBITT,

winner of a top SMP award for his brilliant shot (left), 4 years of Signal Corps photographic service plus 4½ years in commercial photography preceded his enrollment for SMP's ultra-modern training. Now, with photography's latest techniques at his fingertips, he plans to specialize in advertising photography.



By THOMAS J. PETERSEN



By RAY HOWARD



By EDYTHE HILL

2. The answer is yes—to the question "Can I turn my hobby into a career?" To cosmopolitan SMP come many enthusiastic amateurs for the streamlined, completely rounded schooling that quickly transforms them into skilled professionals. Three cases in point are EDYTHE HILL, RAY HOWARD and THOMAS J. PETERSEN. Determined to capitalize on their penchant for pictures, the two ex-servicemen naturally chose SMP, internationally acclaimed for pro-

fessional instruction. Here they met former Wac, EDYTHE HILL. Now the talented threesome have joined forces, plan to work together.

3. Always in vogue are good photographers! That's why professional EARL L. SAUNDERS of Arkansas came to SMP for extra-special know-how in color work. His technique perfected, he now plans to locate his studio in Little Rock—specialize in color portraiture.



By EARL L. SAUNDERS



4. Information Please! "What about tuition fees?" Specialized courses day or evening, are exceptionally moderate. Visit the School, or write for outline of courses. Address H. P. Sidel, director, Dept. M10.

THE SCHOOL OF MODERN PHOTOGRAPHY
136 East 57th St. New York City

The Last Word

Mystery of the Month

Sirs:

How did Mr. Howard E. Foote get the color of the brick in the cover of August MINICAM PHOTOGRAPHY? I am inclosing a true color (red brick) of the same place and as it is one of my favorite shooting galleries for the last 30 years or more, I sure know this spot.

New York City.

WALTER H. FARRELL.

• Engravers followed the color in Contest Winner Foote's 2¼x3¼ Kodachrome very closely, yet Farrell's 35mm transparency shows the bricks to be unmistakably red. Does New York brick change color with the seasons?—Ed.

Sirs:

The August MINICAM cover is indeed one of the best you have had. It has everything, I should think . . . and your contest winner, Howard Foote, should be very proud of it. I have heard many good comments on it!

New York City.

EVERY SLACK.

Avery Slack had the August cover spot a year ago (Peggy's Cove) and he goes up another notch in our estimation with his cover this month.—Ed.

Try-Out

Sirs:

The girl in the attached photo doesn't believe she is suited for glamour photography, but



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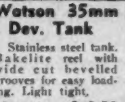
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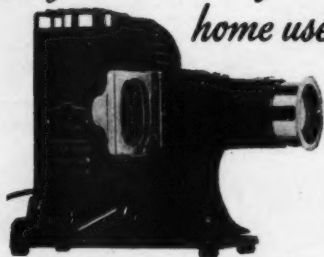
SHOW THEM TO BEST
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WITH AN

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You've spent time, energy, and money on those new transparencies. You're hoping every highlight and shading will project as beautifully as you planned. But remember . . . *your slides can be no better than your projector.* Bring out their full beauty with an S.V.E. projector. Here's why the S.V.E. is America's preferred projector:

- Uniform, brilliant illumination.
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*2 projectors ideal for
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Model RK... S.V.E. Model RK 100-watt projector for 2" x 2" slides only. Covers full Bantam size frame. Excellent satisfaction for Kodachromes. Complete with Petzval type lens, horizontal slide carrier, and leatherette carrying case.

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noting her lovely profile, I persuaded her to let me photograph it. I maintain there is room in the modeling field for her; she doesn't think so. We'd both appreciate other reader's opinion.

Concord, Calif.

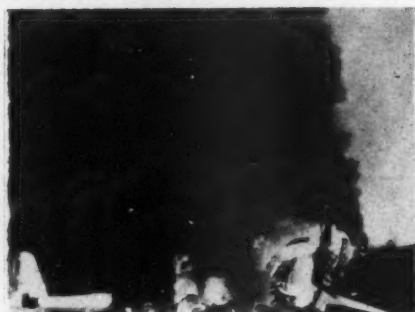
WILLIAM O. BROWN.

Bob Moore Was Alert!

I do not specialize in disasters—this one occurred too close for comfort. This picture series, taken with my Micro-16 snapshot camera, shows the crash of a Delta Airlines plane last April at the Muscogee County Airport in which several Delta executives were killed.

Columbus, Ga.

ROBERT E. MOORE.



Project 'Em "King Size"

Sirs:

Many people have large-sized color transparencies, but they can not project them in their regular projector which takes up to only 2 x 2 inches slides.

This problem can be solved by using the enlarger as a projector. Just insert the transparency in the negative carrier and project the image with your enlarger on your easel. If your enlarger can be set horizontally, you can project the transparency on your screen. If your enlarger has not a heat-absorbing glass, do not leave the transparency too long in the enlarger, because the heat from the enlarger lamp may damage the transparency.

Brooklyn, N. Y.

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GADGET BAGS

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- ☐ Please send me FREE Filter Information Chart.
- ☐ What is your CASH or TRADE-IN ALLOWANCE on the following equipment:

Name

Address

City State

Movie Query

Sirs:

I read with a great deal of interest the article "It's the Law" by Don Storing, which appeared in your April, 1947, issue.

In order to legally project movies taken of an individual, should I get a release from the person who appeared in the movie?—if the projection of the movie is used for advertising purposes?

Can you advise me what federal agency and state agency should be consulted in order to ascertain if an amateur using a 8mm movie camera must pay any license fee or any other fee in order to take movies at a profit?

Burlingame, Calif. WALTER L. COOKS.

Storing's Answer

Sirs:

The laws governing cine photography are for all practical purposes the laws governing still photography. Little limitations is placed upon taking pictures, although there are restrictions upon the way in which they may be subsequently used. Also, Mr. Cooks certainly should obtain a valid release covering all persons who appear in the movie if it is to be projected for advertising purposes.

I do not know of any law which requires payment of a fee in order to take movies for profit. This question is probably traceable to individual casts where a fee was paid in consideration for a model release, or admission, in order to take movie pictures. Of course, if he establishes a business in a state which requires payment of a corporation tax, he must pay the usual business taxes.

Binghamton, N. Y. D. D. STORING.

Metal Over Plastic?

Sirs:

Please let me know if anyone else is having trouble with the new plastic 35mm cartridges.

Everything works all right until the whole roll is exposed—then I have to use sheer force to rewind. Subsequently either the film breaks and requires darkroom unloading, or the film is just one long group of scratches.

Metal cartridges work perfectly—no trouble at all.

LAWRENCE G. HEINRICH.

* Anybody on the same barge with Heinrich? —Ed.

Three-Dimensional Photography

Sirs:

I would appreciate information on three-dimensional photography. What have been the results among companies doing research along this line?

New Castle, Pa. GEORGE H. GETTY.

* As far as we know, no outstanding developments have occurred to add materially to the information contained in MINICAM'S two-part article on the subject in the Dec., '46, and Jan., '47, issues.—Ed.

(Continued on page 130)

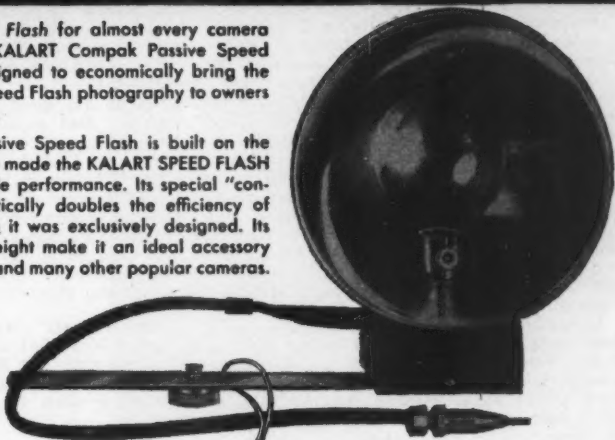
The **KALART** *Compak Passive* **SPEED FLASH**

There's a KALART Speed Flash for almost every camera made. For instance, the KALART Compak Passive Speed Flash shown here was designed to economically bring the pleasures and profits of Speed Flash photography to owners of popular-priced cameras.

The KALART Compak Passive Speed Flash is built on the proven principles that have made the KALART SPEED FLASH line famous for dependable performance. Its special "concentrating" reflector practically doubles the efficiency of the midget bulb for which it was exclusively designed. Its "pocket size" and light weight make it an ideal accessory for Kodaks, Ansco's, Argus and many other popular cameras.

PRICE COMPLETE

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PRICED CAMERAS
WHO WANT
TO MAKE
Speed Flash
PICTURES
LIKE
PROFESSIONALS DO!

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Combination price - - - \$9.79

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PHOTO MARKETS

Compiled by MAY SULLIVAN

During the next twelve months you will see a number of MINICAM's covers which were selected by our editors as the prize winners in our annual Cover Contest. Look them over, study them, and plan to send in your own contribution next year. The closing date of this year's contest was September 16.

Business Girl Magazine, Dallas 2, Texas, in conjunction with Miss Joan Leslie of Hollywood movie fame, is making a search of the United States for the Ten Best Dressed Business Girls. Final selection will be judged from photographs in the early spring of 1948. Since pictures must be furnished to *Business Girl* by candidates, the program affords an excellent opportunity for free-lance photographers everywhere. The photographer may request qualification blanks direct from the magazine and may recommend any business girl not making over \$250.00 per month to be a candidate. He may also suggest to the candidate the type picture to submit. Preferred photographs of candidates will show a typical work-day outfit.

In addition, *Business Girl Magazine* runs 8x10 glossy print, black and white, on the front cover. Action shots with business background preferred (office, tops of buildings, street scenes, etc.). Pictures showing advance fall fashions of specific women's apparel manufacturers will be given extra consideration.

For "Stars in Business Sky" section, *Business Girl* uses 8x10 glossies also of successful business women. Must be accompanied by 50 word story of accomplishments, background, business affiliations, etc. Action shots preferred.

All photographs submitted must be accompanied by commercial release to publisher from subject. Payment for photographs made only on publication and can be returned only if accompanied by return postage.

American Fruit Grower Publishing Company, 1370 Ontario St., Cleveland 13, Ohio, are in the market for photos of fruit on the tree—close-ups. Also good tree photos. Like to have varieties of fruit identified. Also need good picking pictures, and good processing pictures—canning, juice making, etc. Pictures of people working in orchards. Payment depends on size and quality of photos. Very little color is bought, but for exceptional work the price for color is \$10.00.

American School Board Journal, 540 North Milwaukee Street, Milwaukee 1, Wisconsin. Wants photographs of architecturally significant school buildings, particularly of the modernistic type. Pictures of classrooms and other school interiors with children at work or study. Human interest pictures of children of school age. Payment \$5.00 for each photograph accepted.

Emil Zubryn, American representative for International News Alliance, major European syndicate with New York offices at 47 West 56th Street, New York 19, New York, is interested in overseas rights to photo stories having (1) strong international interest, or (2) showing aspects of contemporary life in America. Only top-notch material desired and photographers must obtain clearance of overseas rights to published pictures. Generally speaking, material of Life, Look, Salute, Pic calibre required, although any good picture series will be considered. Also require spot news photographs having international interest; glamour shots; nudes and Kodachromes, either single shots or series. This central agency handles material for the entire overseas area, is financially responsible, and prompt reports and statements monthly are issued through New York. All material handled on a 50-50 basis with better than average prices obtained. Correspondence invited from professional photographers and agencies.

The Parents' Magazine, 52 Vanderbilt Avenue, New York 17, New York. Mr. Ralph O. Ellsworth, Art Director advises that they are always in the market for good, candid and interesting shots of children—alone, or with parents.

The Rotarian, 35 East Wacker Drive, Chicago, Illinois, official magazine of Rotary International, is looking for Kodachromes or color shots illustrative of two subjects—one, Latin America (particularly Brazil)—two, industry. In both cases preference is usually given to human interest. *The Rotarian* pays \$50.00 and up, but definitely do not want miniatures. The best reproducing results are obtained from transparencies of 3 1/4 x 4 1/4 and larger. Address your contributions to Leland D. Case, Editor.

Photographers who wish to sell their pictures will be interested to learn that the 1948 edition of *The Photo Market Guide* is now in preparation, and is scheduled for November publication. The book's publishers, D. B. Nephews Publishing Co., of 300 Pacific Street, Brooklyn, New York, report that this year's edition will be larger than was the 1947 Guide. More than 650 markets will be listed. Because of the growing interest in color work, users of color will be indexed separately for the convenience of photographers who are interested in reaching the high-paying color markets exclusively.

Kitsmiller Photo Agency, 605 Bulen Avenue, Columbus, Ohio, asked us to tell our readers that they market photos at one-third commission. Subject should be of human interest type.



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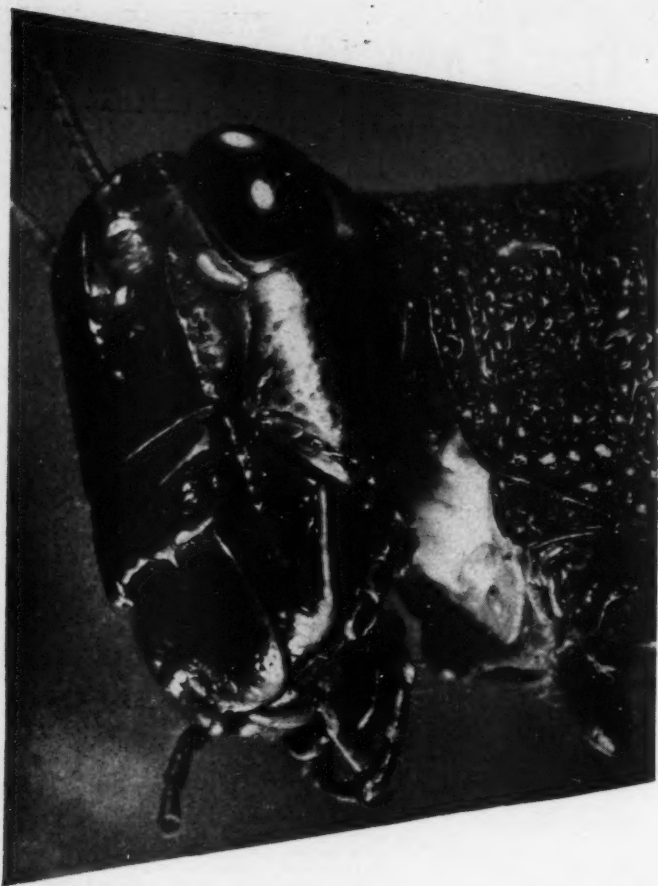
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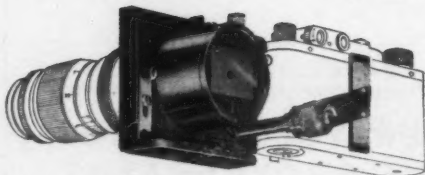
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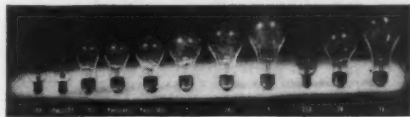
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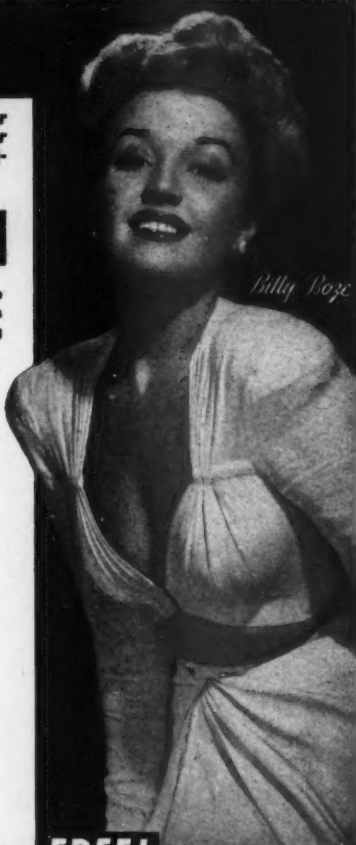
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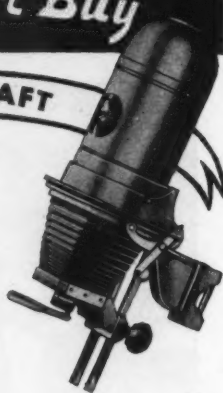
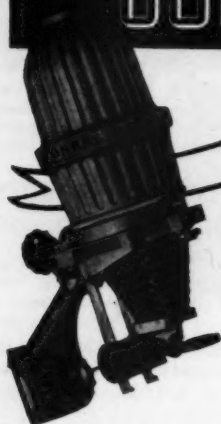


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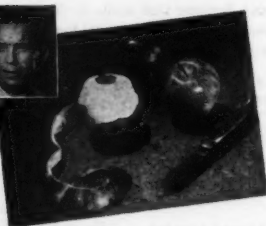


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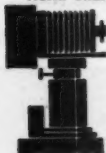
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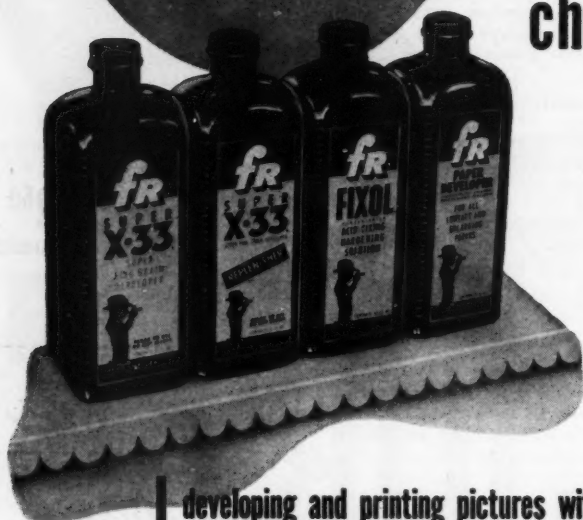
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Names Make News

By Jack Waters

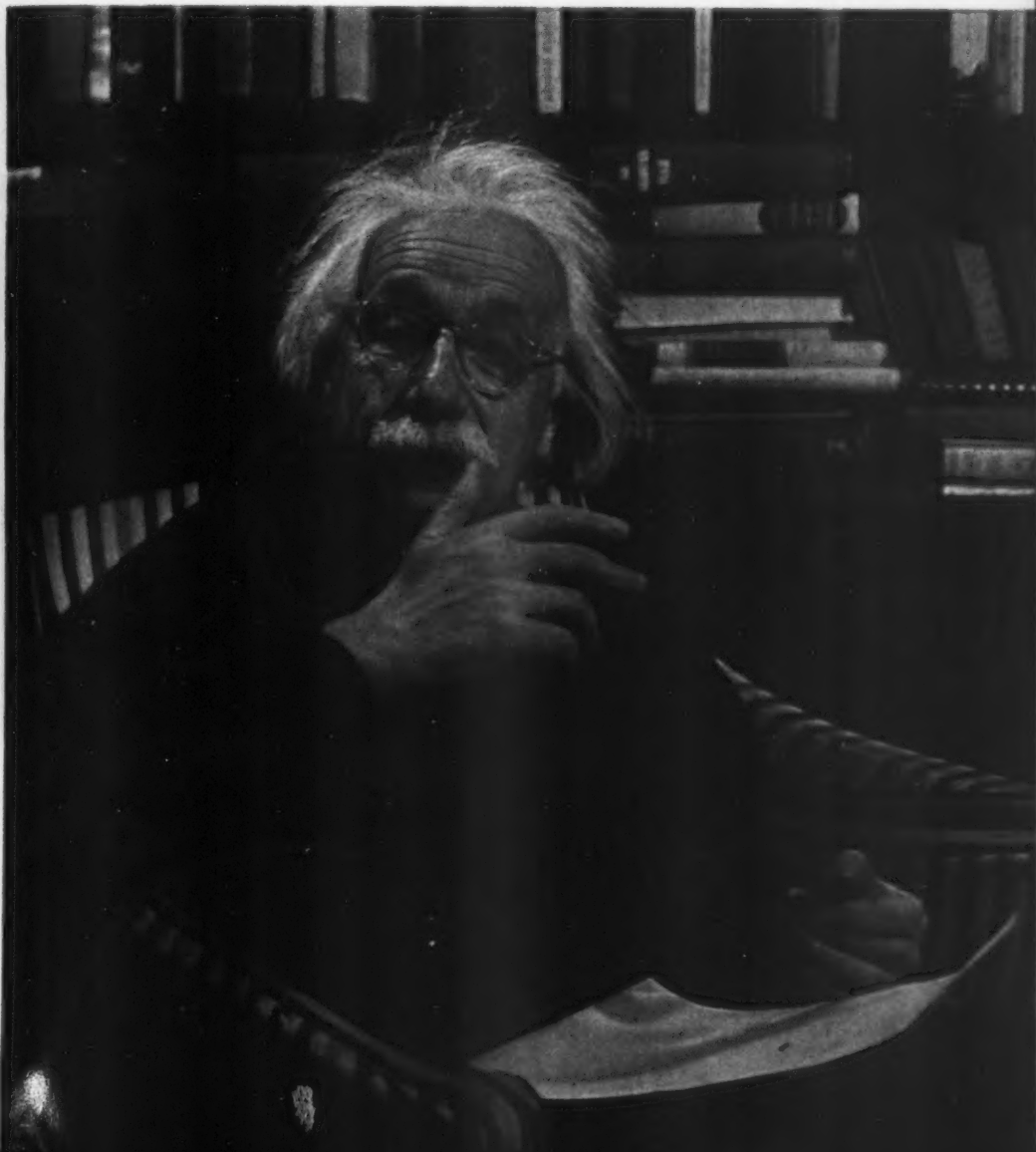
O. C. Sweet, Newsweek's chief photographer, gets a kick out of picturing the famous, as well as photographing "just plain people"

HOLDING hands with Ingrid Bergman, sharing the pitcher's box with Bob Feller, or discussing atomic energy with Professor Albert Einstein is all in a day's work for Color Cover Photographer Ozzie Sweet. His numerous lens experiences with stars of radio, stage and screen, politicians, scientists, authors, musicians, military leaders and champions in the

world of sports might easily fill a miniature edition of "Who's Who." Even Bushman, one of the most popular gorillas in captivity, can be found on Sweet's intriguing list of color portrait accomplishments.

Sweet himself is as interesting as the people he photographs. Originally an actor, you may have seen him in *To The*

Color Photos Courtesy Newsweek





Shores of Tripoli, Reap The Wild Wind, or any number of sundry westerns. He has played character parts ranging from an aggressive Nazi officer to an eighty-year-old gold prospector and it was while in Hollywood in front of the lens that he became interested in the mechanics or photography. Today, he has over 200 color covers to his credit, not including the countless picture stories, posters and ad illustrations that have been published.

To accompany Sweet on a so-called "routine assignment" is an invigorating experience. He leaves nothing to chance. Every detail is carefully considered many

days before the actual sitting. Prior to each assignment he digs up biographical sketches and past pictures, and thoroughly acquaints himself with the subject's personality and appearance. He reads pertinent newspaper clippings and magazine articles at the library, wades through lengthy newspaper and magazine picture morgues and, when possible, talks to someone who knows the subject personally.

"Anything that helps to establish a bond of common interest with a celebrity is important," says Sweet. "On the occasion when I photographed Henry Ford

II, I learned through advance research that he was extremely interested in amateur photography. Sure enough, the subject came up shortly after my arrival and, as a result, we became easily acquainted."

It's undoubtedly this accurate pre-knowledge of the subject's background, interests and appearance that produces the unique Sweet poses and symbolic settings. He explains his flair for details this way.

"On an assignment to do a photographic illustration where the idea is predominant, one of the big problems is to find a face that fits the idea. When photographing a well-known face, the big problem is to work out an idea that fits the face."

Sweet will go to any extreme to carry through this idea. Recently, when making a portrait of photogenic Jinx Falkenburg and family, he took with him three pairs of red shorts in varying sizes to fit Jinx, Tex and the baby. Another time, he constructed a model cow as a prop to help set the appropriate scene when photographing the Secretary of Agriculture, Clinton Anderson.

Rarely does Sweet negotiate a sitting directly with the subject. Rather, the subject's representative—press agent, secretary, or assistant—is the person he contacts once he is fortified with a carefully chosen list of posing ideas. They go over the list of posing suggestions together, editing them to the tastes of the celebrity. If props for a particular idea prove too difficult to obtain, the idea is immediately discarded to avoid working against time during the sitting. The matter of wardrobe—the color tie the subject will wear, or the suit or dress to fit a specific color arrangement—is agreed upon. And finally the actual appointment is scheduled. Sweet insists upon arriving for a sitting at least forty-five minutes ahead of time

to set-up and test equipment, arrange the props and study his surroundings.

Ernest Bevin, for example, told Sweet he could come in and photograph him, but not to disturb him in any way. The result was a "quickie" portrait in a matter of a few minutes. Conversely, when he photographed James Mason and his famous cats, he made more than thirty exposures of the actor and his wife in characteristic poses around their Connecticut estate. To complicate matters, Mason was scratched on the lip by one of his cats during an early exposure, and throughout the remainder of the sitting blood had to be wiped from his lip.

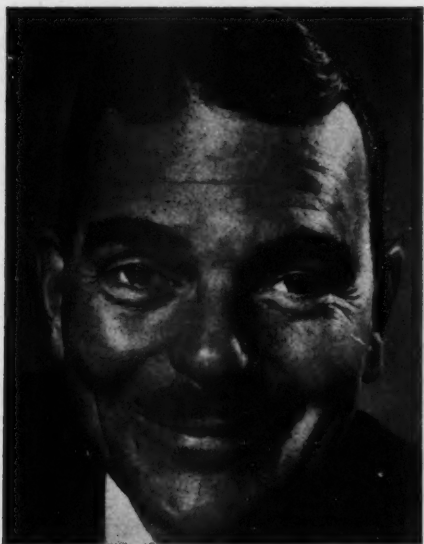
Sweet often employs the time-saving Hollywood device of using stand-ins to firmly "fix" a pose prior to a celebrity's arrival. Generally, he arranges for stand-ins in advance, however, at times he simply solicits the services of someone watching the proceedings. On at least one occasion this proved an embarrassing experience. While photographing Senator Vandenburg, he requested the services of a stand-in who, as he was later informed, was an Assistant Secretary of State. Sweet reports the Secretary was "very cooperative!"

"I usually know at once how difficult Mr. X will be the minute he makes his entrance," says Sweet. "He may come dashing in, shake my hand and say, 'Let's make this quick.' This type of subject almost invariably makes a feint at leaving after the first exposure."

When he photographed John L. Lewis, the Union Chief threatened to leave after each take. After three shots Sweet decided he had worn his welcome too thin to risk another, whereupon Mr. Lewis hesitated and asked if he were sure he had enough. Many people, like Mr. Lewis, are anxious to have the photographer get a good picture, but feel the rush act is part of the game.

Then there are those who approach the camera as though they were going to the gallows. Others belittle themselves, informing Sweet that he is trying to achieve the impossible. Occasionally he even hears

FOR COMPLETE DATA on how Ozzie Sweet shot the foregoing color cover shots of Paul Whiteman, Dr. Einstein, and the riveter, see page 140:



CLOSE-UP of a Dewey smile was successful only with complete cooperation from the Governor. Sweet tells us that this 40 percent smile was about right—a wider one exposed a protruding front tooth.



SWEET went to a matinee of "Happy Birthday" to study Helen Hayes' interpretation of a drunk. Later, as Ozzie explained the shot he wanted Miss Hayes told him. "Focus your camera, young man—and I'll give!"



HIS ROYAL HIGH-NESS Prince Al Faud Amir Faifal, chief of the Arabian delegation to the United Nations, allowed Sweet 90 seconds for a color portrait while on his way to a General Assembly meeting.

that tired old saying, "I'm afraid I'll break your camera."

Fortunately for Sweet, most celebrities are cooperative, even to the point of assisting when things go wrong. While photographing Charles Kettering, noted General Motors engineer, a flash bulb exploded and Sweet had difficulty in getting the remains of the bulb out of the reflector. Kettering ordered some tools and insisted on repairing the damage personally. After he had finished and returned the reflector ready for a new bulb, someone remarked to Sweet, "Pretty high-priced assistant you've got there, fella."

Occasionally, a subject ignores the fact that camera work is being done, while at the same time he follows directions and tries in every way to cooperate. During

the half hour Sweet photographed Herbert Hoover, the former President wasted no words, merely saying "Hello" and "Thank you." However, he was an excellent subject and allowed Sweet to pose him in a dozen different ways.

Most of Sweet's current assignments result from his present position as NEWSWEEK's Chief Photographer. Frequently he is accompanied by a NEWSWEEK reporter. This was the case when he photographed Dr. Albert Einstein who became so engrossed in his interview that Sweet attained the acme in naturalness of expression.

Unlike Dr. Einstein, celebrities are frequently hurried, making it difficult at times to obtain a natural-looking portrait.

(Continued on page 138)

OZZIE SWEET sets the exposure for famous model Jinx Falkenburg to take a "father and son" snap of hubby Tex McCrary.



Why wait to make your HOMEMADE ENLARGER?

Start now, and have it completed for that winter rush. This many-purpose unit may be just what you have always wanted.

by Herbert E. Haffter

FROM THE LETTERS that have been received by the editors, it seems that the most popular item on the construction program of most amateur photographers is the making of an enlarger. To satisfy the demands of each individual would be impractical, however, so a description of an enlarger built to fulfill the requirements of the author as to economy, mobility, compactness, and versatility in performance should provide the basis for the designing of a unit such as this, adapted to your own particular needs. Perhaps you will not require the many features incorporated in this model—leave them off and forget them then. If the negative size is not the same as yours, why, then, make *your* enlarger for the size negative you use. If you own your own home and do not need the portability built into this unit—fasten *your* enlarger to the ceiling and bench with expansion bolts and lag screws. The basic principles of all enlargers are in this unit, with a few other darkroom operations thrown in for good measure.

By studying the pictures and explanations it will be seen that a number of phases of photographic work done by the amateur can be accomplished with a minimum of time, space and equipment. The unit can be made ready in a few

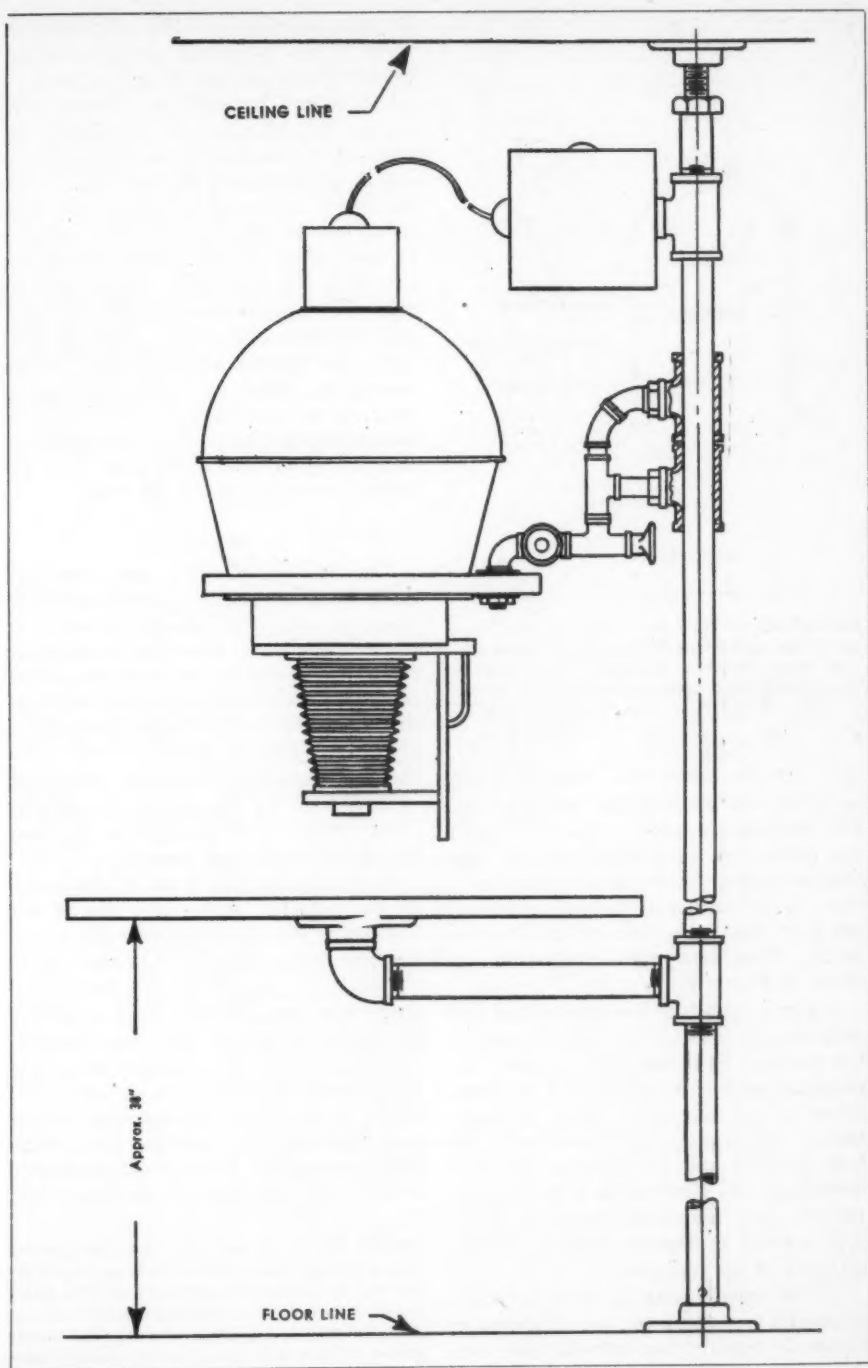
minutes for either enlarging, printing, retouching, copying, or making negatives from Kodachrome transparencies. The unit could also be used in movie work, especially for editing and titling, and this possibility should not be overlooked by the ciné fan. The total cost of the enlarger, as described, was \$30.00.

Figure 1 shows a completed view of the enlarger. Comparing the drawing with the pictures will no doubt clear up some of the questions that have already come to your mind. Others will be dealt with as the steps in construction, and materials used, are outlined.

The Lamp Housing

An aluminum, tube-center, cake pan and plain aluminum pot of the same inside bead diameter are used as the light house. The bottom of the cake pan is cut out—leaving about 1 inch all around the side. This stock is cut at intervals so that it can be bent downward and in

FIGURE NO. 1—The completed enlarger shown installed between the floor and ceiling of a darkroom or work corner. The wedge-fit gives stability, yet permits easy dismantling and moving without marring premises—a feature every apartment dweller will appreciate at this time.



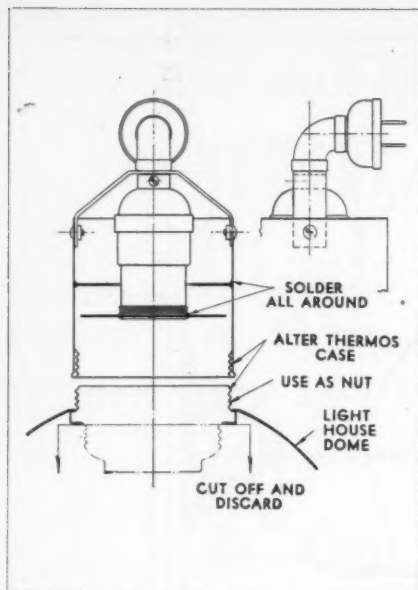


FIGURE NO. 2—The heat trap is made from an old thermos bottle. Be careful to allow sufficient space between the light socket and the upper baffle plate so that a draft will be created to draw off the heat from the lamp housing.

line with the sides; thus material is left to nail to the inside of the enlarger base. The bead of the pot is then pried open and rolled over the bead of the cake pan, thereby sealing the two pans together as a unit. A hole is cut in the pot to receive the heat trap made from an old thermos bottle. This heat trap construction is shown in Figure 2.

A signal light, which is not essential but rather handy, is also added to show whether the enlarger light was left on after the enlarging work is completed and the room lights turned on. This signal is made from a red license plate holder with the bolt removed and the metal in the rear bent back and clinched in a hole cut in the top pan. The hole should be about $3/8$ " smaller in diameter than the outside diameter of the red glass.

The enlarger base is cut from $3/4$ " thick plywood—the center cut out as shown in Figure 3—leaving four semi-circular ears

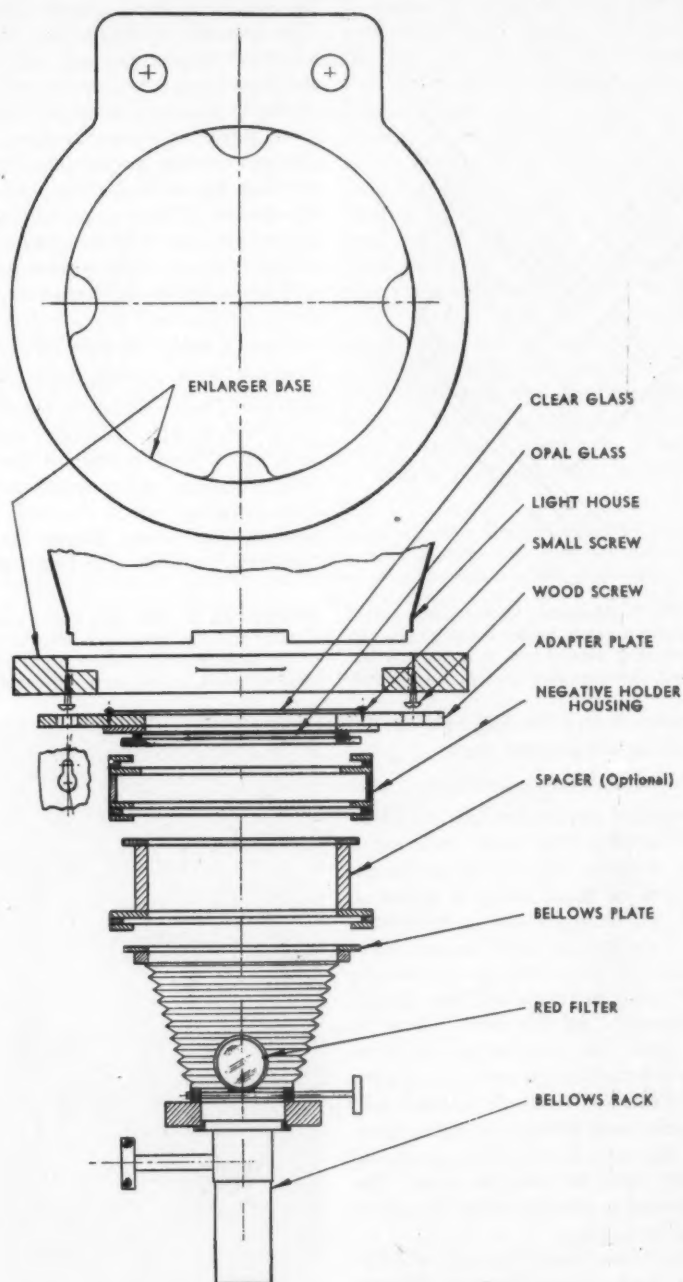
for the woodscrews. The placement of these screws should be rather accurate, on a diameter and equally spaced, as other adapters may be used to suit your own needs. The diameter of the hole in the base will be the same as the outside diameter at the bottom of the cake pan. After the inside is formed as shown, the light house may be nailed to the base. A notch at four places in the aluminum of the cake pan will have to be cut so as to fit over the enlarger base at the four ears, and any excess aluminum trimmed flush with the bottom of the base. Before boring the holes, by which the base is attached to the enlarger support, it is best to complete the support, as explained further along in this article, so that the proper measurement can be made.

The Adapter Plate

The adapter plate is cut from $1/4$ " thick plywood, about $1/2$ -inch smaller in diameter than the outside diameter of the enlarger base. Four keyhole slots are cut into it so that the heads of the screws, fastening it to the enlarger base, will pass through. Then with a slight turn of the plate the shanks of the screws will enter the small part in the slots. By taking one or two turns on the screws the adapter plate can be pulled up tight to the base. See Figure 3 for these details.

A rectangular hole is cut in the center of this adapter plate—the size of the hole being slightly larger than the largest size negative to be used. On one side of the adapter a glass plate is mounted flat over the rectangular hole, held in position by four small screws. This glass helps to keep the heat of the enlarger bulb from reaching the negative. On the other side of the plate a slide arrangement is built from $1/8$ -inch thick masonite strips. This slide construction allows the opal glass to be put into position from the front, then

FIGURE NO. 3—A sectional view of the enlarger. Notice how the filter has been placed inside the bellows and behind the lens. The small detail at the left shows how the keyhole slots are made in the adapter plate to accept the woodscrews holding it in place on the enlarger base.



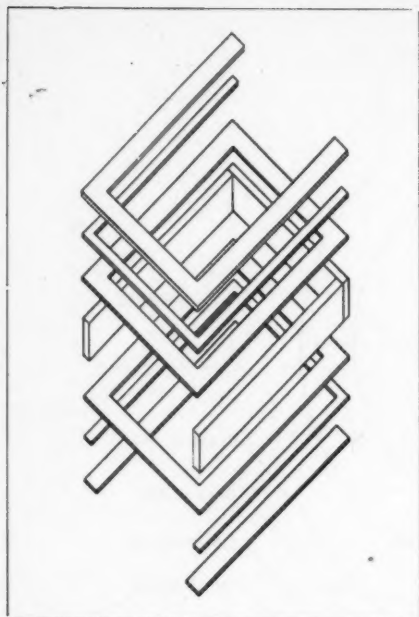


FIGURE NO. 4—Masonite, $\frac{1}{8}$ -inch thick, is used in making the negative holder housing. You can gain an excellent idea of how it is put together by studying this exploded constructional view.

the negative holder housing can be slid into place on the adapter plate.

The Negative Holder and Spacer

The negative holder housing is a built-up, or laminated, unit made from strips cut from masonite $\frac{1}{8}$ -inch thick. An exploded view of the housing is shown in Figure 4. The large opening in the center, looking at the housing from the end, is for the negative holder, which in this enlarger is a 4 x 5 printing frame with the hinged back discarded. At this time it may be well to point out that before any construction is actually begun on the enlarger, the size of this holder should be taken into consideration and definitely decided upon.

After this unit is completed it should slide easily onto the adapter plate. The bottom groove is used for either the spacer or the bellows unit.

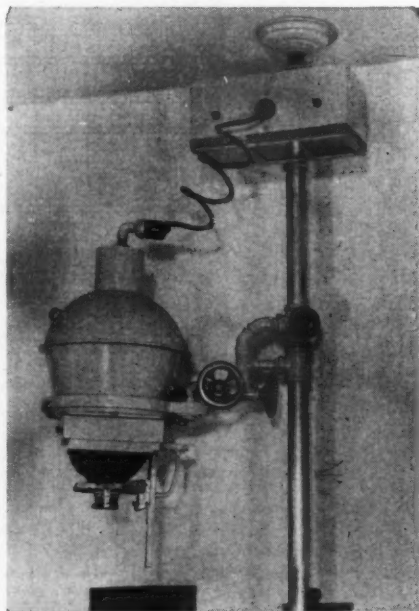
The spacer is optional, but you will find that it is handy when enlarging different size negatives, as the bellows extension

may not be enough to cover the range of the different focal length lenses used. The spacer is a simple box construction with a fitting at the top that will enter the negative holder housing and a groove at the bottom to receive the bellows unit. This groove must be identical in size to the one in the negative holder housing so that the bellows unit will be interchangeable. The depth of this spacer will depend on the different lenses the individual has. A little experimental work will be needed to determine the right size.

Making the Bellows Unit

The bellows unit illustrated is from an old 4 x 5 camera and is mounted on a piece of $\frac{1}{8}$ -inch masonite which slides into the bottom groove of the negative holder housing. A leg or slide support was then mounted toward the back, as can be seen in the photo, Figure 5, so as to duplicate the slide and rack construction

FIGURE NO. 5—The lens board must be kept parallel with the negative holder. Careful fitting of the racking mechanism, at right angles to the bellows board, is the answer. Note the support.



that had been used on the camera. This leg must be rather rigid and at right angles to the wood piece on which the bellows is mounted, as it is of the utmost importance to have the lens parallel with the negative. The hole in the lens board was made larger so that, in this case, a Korable lens ring could be mounted on it.

A small hole was drilled completely through the wood just behind the lens board, into which a small shaft was inserted with a round knob soldered on the end for the control. A wire ring was then soldered onto the shaft on the inside of the bellows and a red filter was cemented to this ring. By turning the knob the filter is lowered across the back of the lens. This keeps the filter out of the way, yet accessible. The details can be studied in Figure 3, where the lens board is shown in section.

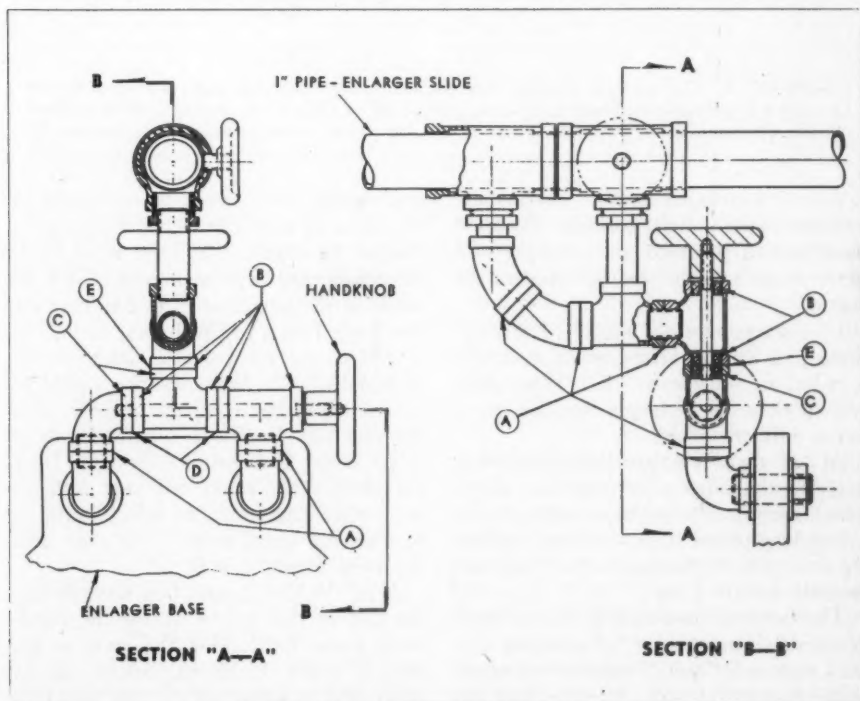
The Enlarger Support

The support for the enlarger is shown in Figure 6. For the most part this unit was assembled from standard $\frac{3}{8}$ " galvanized pipe fittings. It is best to assemble this unit before boring the holes in the enlarger base so that the holes will match the centers of the pipe fittings.

To get the swivel action at "D" a brass rod was threaded with a $\frac{3}{8}$ " pipe thread and screwed into the elbow at "C." It was cut off flush with the elbow flange, and next a $\frac{1}{4}$ "-20 N.C. tapped hole was put into the center to receive the $\frac{1}{4}$ " brass stud. At "B" there is a similar construction, except for the center hole, which is a $\frac{9}{32}$ " drilled hole, a clearance for the $\frac{1}{4}$ " stud. This stud, screwed tight at "C," extends out beyond the pipe tee to receive the washer and handknob.

When the handknob is tightened, a

FIGURE NO. 6—The enlarger support is made from standard $\frac{3}{8}$ -inch galvanized pipe fittings for the most part. It is capable of practically universal adjustment to gain any type of control. For a description of how to assemble this part of the unit see text under "Enlarger Support."



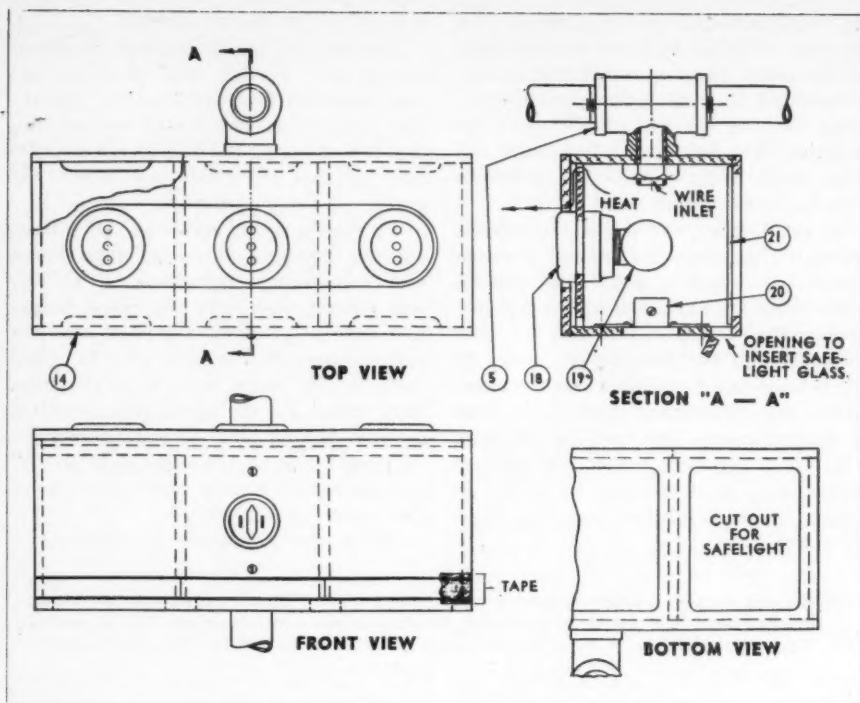


FIGURE NO. 7—The safelight housing is simple to construct and will more than pay for the time taken to assemble it. However, you may leave it off the unit, if you so desire, without affecting the operation of the enlarger in any way. The choice is yours to make as you see fit.

squeeze is developed at "D," holding the enlarger in the upright position. When the handknob is loosened the enlarger will move in an arc with the $\frac{1}{4}$ " stud as the center.

In a plane at right angles to this arc there is a similar arrangement, to affect a swivel or squeeze at "E." With these two motions the enlarger may be set at many different angles.

At "A" there is a tight joint, which was made by threading a $\frac{3}{8}$ " pipe with about 6 inches of threads and then cutting it into 1-inch long pieces. This was done to allow the flanges of the fittings to come together to make a tight joint.

The two tees used to slide the enlarger up or down are $1 \times 1 \times \frac{1}{2}$ " reducing tees with a plain $\frac{1}{2}$ " to $\frac{3}{8}$ " reducer to connect to the two $\frac{3}{8}$ " nipples. The length of the

two nipples will govern the overhang of the enlarger from the vertical pipe slide. One of the nipples may have to be made shorter or some adjustment may have to be made in the length of thread so that the two large 1-inch tees will come in line, as a bind on the vertical pipe would be objectionable. The best condition would be to line bore after complete assembly, but the tees can be bored separately about $\frac{1}{32}$ " larger in diameter than the O.D. of the shaft. This works out very well, as the longer nipple can be bent slightly to line up the bored holes. The slide does not need a precision fit.

A $\frac{3}{8}$ "-16 N.C. tapped hole was put into the side of one tee to receive the handknob screw for locking this unit to the vertical shaft. Blank handknobs can be purchased at a mechanical tool and sup-

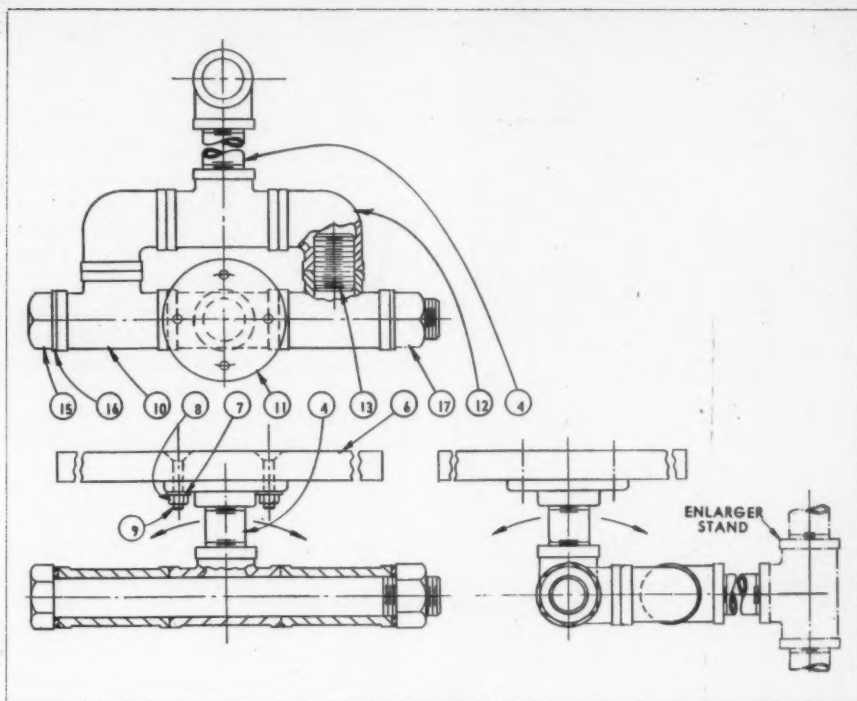


FIGURE NO. 8—For those who wish to try their hand at distortion control or printing, the base-board can be arranged to swivel in two directions. This gives practically limitless control over the projected image. It may be omitted if you do not require it, but it comes in handy at times.

ply company. However, they may be made from the handwheel of an outdoor or basement faucet, either by tapping the hole or welding the required size machine nut to them. On the one locking wheel the brass screw will have to be tight in the wheel, which can be accomplished by soldering it in place.

To assemble this unit to the enlarger, a nipple is screwed into each elbow. With washers in place, the nipples are inserted in the drilled holes of the enlarger base, then the stud pipe nut is tightened. A coat of grey enamel to match the enlarger completes this unit.

The Safelight Housing

The safelight shown in Figure 7 has three separate light compartments. The material used is masonite, obtainable at

most all lumber yards. The light sockets are of the porcelain variety. In studying the construction, the heat escape at the top should be noted as this feature is very desirable. The size of the box will be determined by the size of the safelight filters that you decide upon.

Installing the Enlarger

After completing the enlarger and safelight, the set-up shown in Figures 1 and 2 was used. Using 1-inch pipe and pipe fittings for the upright support, with the squeeze fit construction at the top as shown in Figures 9 and 12, the drawing board was then mounted on the extended arm to form the work table. All electric wires are concealed inside the pipe with the outlet near the floor. Later, the universal joint construction shown in Figure

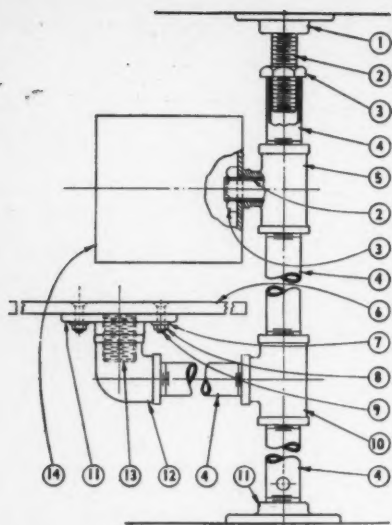


FIGURE NO. 9—(Above)—Here is the assembly drawing for the standard enlarger support, including safelight housing. If a swiveling base-board is installed, the elbow (12) is replaced by a tee as shown in Figure No. 8.

FIGURE NO. 10—(Lower Left)—Retouching can be done by removing the negative holder housing, lowering lamphouse to bottom position, inverting it, and then replacing the enlarging lamp with one of lower wattage.

FIGURE NO. 11—(Lower Right)—For copying with the camera, an additional adapter plate with a bracket that accepts the camera is made. It fastens to the enlarger by means of keyhole slots which fit the base screws.

8 was added to the work table for tilting and distortion control. This alteration is self-explanatory.

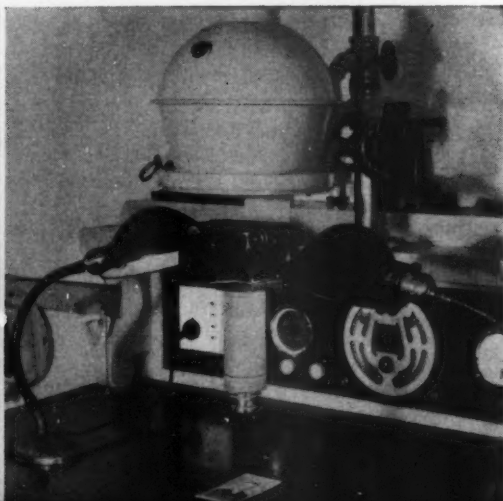
Using the Unit

To retouch negatives it is only necessary to remove the negative holder housing and bellows, let the light house down to its lowest position, invert the housing and set it at an angle, and replace the enlarger bulb with one of lower wattage. Figure 10 shows this adaptation.

To do copy work, another adapter plate will have to be made with the same diameter as the first adapter and the same type of mounting holes to match the screws in the enlarger base. The only other requirement is an angle mounting for the camera to be bolted to the adapter and having a hole in the vertical side so that the camera can be fastened to it with a tripod screw. This set-up is shown in Figure 11.

To make contact pictures it is only necessary to replace the hinged back on the printing frame used as the negative holder when enlarging, invert the light house, and then replace the printing frame with the glass to the light.

The enlarger can also be used as a printer, as shown in Figure 14, by inverting the light house, removing the negative holder housing, and using just the hinged back of the 4x5 printing frame. This is faster than the above mentioned method. To do this, tack a thin strip of metal along the back edge of the hinged



cover between the felt and the wood, letting the metal strip extend out from the edge about $\frac{1}{4}$ -inch. This is then squeezed in between the opal glass and the wood-retaining strip. A mask is put on the opal glass, the negative slipped in between, a piece of sensitized paper centered above the mask, and then the hinged back is brought down and held while the exposure is made.

To make black-and-white negatives from Kodachrome transparencies I place the color slide in the negative carrier and focus the image on the ground glass of my Korelle, which is placed on the easel below the enlarger. The negative is then made as shown in Figure 13.

While my experience with other cameras is rather limited, I see no reason why any single lens reflex would not do the same work that the Korelle does. Most any type of camera could be used, but difficulty in copy work with an auxiliary lens may be experienced. Also, the included field of the negative would be a problem to work out with view cameras.

You can still make a negative from a Kodachrome, however, by obtaining cut film holders, loading the film in the dark, then making the exposure from the enlarger. The focusing can be done by substituting white paper in the holder. When this is done, put two push pins along each side of the holder and one at the top, so when the holder is loaded with

(Continued on page 149)

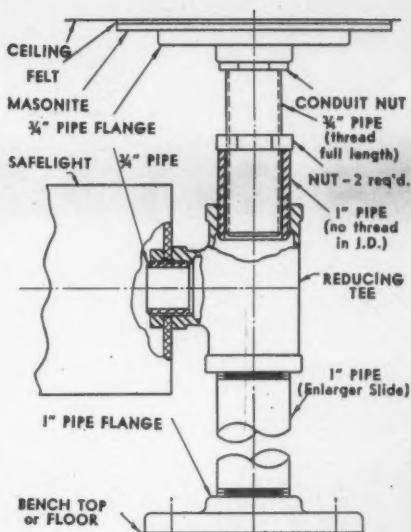
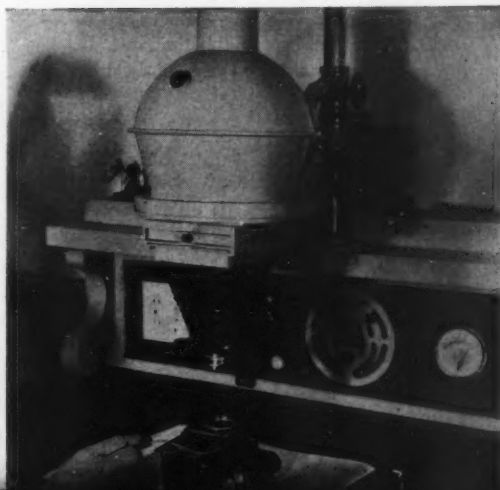


FIGURE NO. 12—(Above)—An enlarged detail showing the construction for obtaining the wedge-fit between bench top, or floor, and the ceiling. The tee (10) which supports the base-board has been omitted for clarity.

FIGURE NO. 13—(Lower Left)—Black-and white negatives are here being made from color transparencies with the aid of a reflex-type camera. You may also adapt this enlarger to ciné titling and other uses.

FIGURE NO. 14—(Lower Right)—The enlarger may also be used as a contact printer by using several methods. The one shown here utilizes the printing frame which is used as a negative holder when making enlargements.





Most parents have to be *educated* to informal child portraiture.

Let's Photograph Kids Naturally

By GEORGE R. KARFIOL

I'M against the Bib and Tucker school of kids' pictures. By the time a child has been dressed up and had his face washed and hair combed, the whole thing looks disagreeable to him — so he reacts against it. On top of that, if you try to pose him formally, make him "look pleasant" or "watch the birdie"—you are likely to be inviting the beginning of the end.

A photographer's aim, I think, should be to get an informal, unstrained picture, and the best way to do that is to make the sitting a casual one. Instead of getting a child tensed up to have his picture taken, you make the situation as nearly normal as possible by letting the subject become occupied with something he's used to while you stand by with the camera.

This more or less "casual" approach to child photography does not mean that all rules of photographic technique can be disregarded. What it does mean is that for the sake of the human element some sacrifice in technical smoothness may have to be made. The problem is to adjust your technique to the demands of the child, rather than fit the child into *your* pattern.

Advantages of Natural Lighting

Take lighting, for instance. In general, I believe you can get better, more natural pictures of children without using artificial light. Sure—you can take fast, well-exposed, sharp pictures by using flash bulbs, but after making two or three shots there is danger of your subject beginning to freeze with anticipation.



INDOOR SHOTS made on a sunny day (*left*) and a gray day (*right*). Karfiol has had better results when placing the child just at the edge of a sunlit area, thus taking advantage of re-

flected light. If Mother is present (and she usually is at feeding time) attention is easily diverted from the camera: There's informality here, a basic ingredient for human interest.

OPEN SHADE, close to a sunny area, provides an ideal setting for natural expression without the usual squint. This light will give good modeling on the face and is enough for short exposures, in this case, 1/250th second at F:5.6 on medium speed pan film. On gray days it may be wise to over-develop the negatives to increase the contrast and modeling.





OUTDOORS, direct sunlight. One key to natural life-like pictures is to record purposefully a genuine situation in which the child finds himself. *Photo by Loder.*

Photofloods or spotlights are even worse. Most adults have a difficult enough time of it posing in strong lights; with children it takes genius to get negatives with more to offer in them than hard stares and squints.

With natural lighting it is different. If you work indoors, you can utilize the light from a window and drape a sheet over a chair opposite the subject to reflect some light back on the shadow side. The subject should not be placed in *direct* sunlight; instead, he should be placed close

to the edge of an area of sunlight so you get soft—yet sufficient—lighting. When the sun is overcast, however, or you are at a window facing away from the sun, you can make use of direct light and still get the advantage of diffusion.

By all means take pictures of kids outdoors if you possibly can. Since you will be working under better conditions you will get, on the average, better results. You needn't place your subject in open sunlight—that, again, invites squints and black shadows. On a sunny day, I choose



INDOORS, slightly overcast, direct sunlight. If still more light is needed use a reflector. Watch for peak expression and have a ready shutter finger for spontaneous action.

a shady spot which allows reflections to come in strongly from one side to give modeling on the face, and I do my best to avoid having patches of direct sunlight showing up in the background because of their distracting qualities.

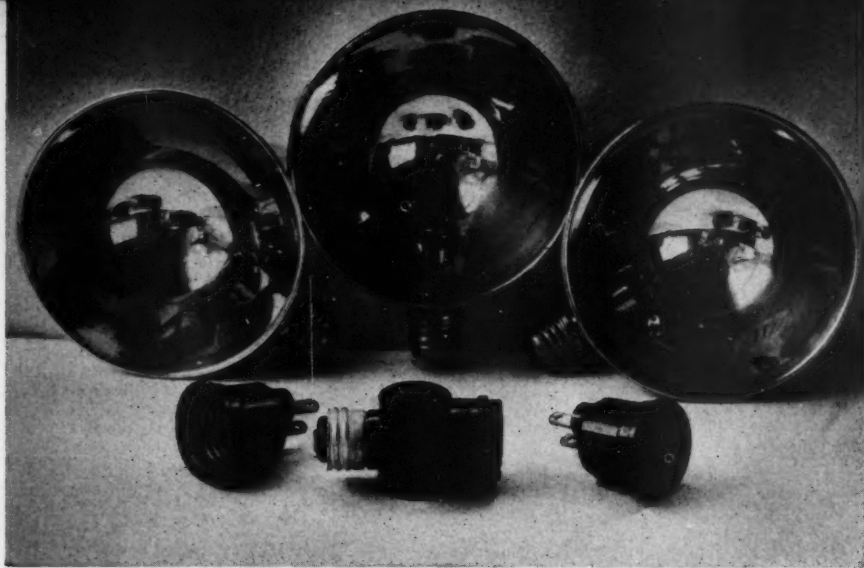
On a gray day it is a good idea to have a large, but limited, expanse of open sky serve as a skylight on one side of your subject. In open country, with light coming in pretty equally from every direction, the tendency will be toward flatness and you may have to over-develop your nega-

tives to get sufficient contrast.

Probably the ideal day for kids' portraits is the slightly overcast day when the intensity of the sun is filtered and softened. Then you get the strong directional effect of sunlight without the extreme brilliance and glare. It's easier to find a good location, and you have less of a problem in getting sufficient exposure quickly.

In any portrait, the kind of light that strikes the face is most important. Be

(Continued on page 147)



Triple Flash for Color

BY E. L. MANTIE

HERE IS a tri-flash unit that will give you the additional light that you need to add speed to Ansco Color or Kodachrome film. The speed increase depends, of course, upon the type of bulbs and film used and the manufacturer's recommendations for same. If the additional speed is not required, the use of this unit will permit stopping down the lens to obtain a greater depth of field and sharper transparencies.

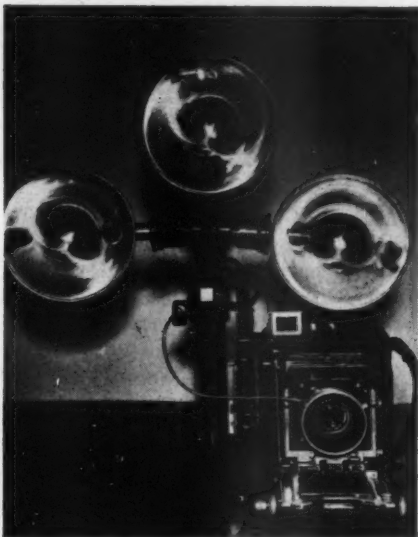
The upper photograph shows the parts prior to assembly. They are:

- 1—Screw-in triple socket.
- 2—Night-light sockets.
- 3—Victor Adapt-O-Flectors for midgem bulbs.

The reflectors cost between \$1.00 and \$2.00 and the sockets may be obtained from your local hardware or dime store for approximately 15c each. All told, this unit cost less than \$7.00 to assemble and it can be used for a number of other purposes.

The assembled tri-flash unit is plugged into the flashgun as shown in the smaller photo. Due to the different types of sock-

ets furnished with various flashguns you may find that the unit does not seat firmly. In this case it is suggested that an adjustable hose clamp be used as a collar to hold the unit securely to the flashgun.





FOOTBALL CAMERA TECHNIQUE

by DOUGLAS G. KILGOUR

Illustrations by Douglas G. Kilgour,

Director of Photography, University of Southern California

THE FIRST TIME a photographer shoots a football game, he loses many shots that might otherwise have been salable simply because he is completely unfamiliar with the fine-points of football camera technique. He is probably making one or more of the following mistakes. (1) He doesn't know at what point his lens should be focused for taking the so-called "grab-shots," which compose ninety per cent of football action pictures. (2) He may be using an unnecessarily fast shutter speed, thereby using a larger F: number and consequently sacrificing depth of field; or conversely, (3) a shutter speed that is too slow to "stop" the action. (4) He may

not be focusing at every presentable opportunity—to insure sharpness in his shots. (5) Or, he may be wasting his shots on pictures where the ball is not visible. Notice that the ball is visible in all of the samples of football pictures presented here.

The two most popular cameras for photographing football action are the Speed Graphic and the Graflex. In both cases the focal plane shutter is employed, allowing shutter speeds up to 1/1000 of a second.

In general, the shorter focal length lenses, that is, six and one-half inches and shorter, are used with the Speed Graphic.

When waiting for action to materialize on a "grab-shot" with the short focus lens, the lens should be focused on its hyperfocal distance; then the far-depth of field extends to infinity and the near-depth of field becomes just half of the hyperfocal distance. The hyperfocal distance of a lens of any given F: number can be easily calculated. Hyperfocal distance of a lens is defined as $1000d$ or a thousand times the diameter of the lens aperture. The diameter "d" may be found by dividing the focal length by the F:

number. Don't neglect to divide by 12 to convert the answer to feet. Thus:

$$1000d \div 12 = h \text{ (hyperfocal distance)}$$

Many photographers keep a small chart handy which readily gives the hyperfocal distance for every F: number on the particular lens used, thereby eliminating guesswork or last minute calculations.

Let us take an example to see how easily this works. In the picture at top of page 51, the lens used was a $6\frac{3}{8}$ -inch focal length. Existing light allowed $1/700$ of a second at F:16. The lens was focused on



the hyperfocal distance which was 33.2 feet, or for all practical purposes 33 feet. This was found in the following manner:

$$\begin{aligned} 1000d \div 12 &= h \\ 1000 \times (16 \div 6\frac{3}{4} \text{ or } 6.375) \div 12 &= h \\ 1000 \times .3984 \div 12 &= h \\ 398.4 \div 12 &= h \\ 33.2 \text{ feet} &= h \end{aligned}$$

The lens now is sharp from approximately 16½ feet to infinity. This particular example materialized at about 25 feet from the camera. It was a natural. The shot was sharp from the farthest player in the background to the closest player in the



KEEP THE BALL VISIBLE

foreground, giving the picture a spectacular effect of depth and action. Even the expression on the players' faces is clear and helps tell the tenseness of the moment.

Many seasoned sports photographers use longer lenses (6½ to 12 inches) on Speed Graphics. As the focal length of the lens increases it becomes more impracticable to focus this lens on the hyperfocal distance, unless the F: number can be comparatively small. Recommended practice with this longer lens is to focus it on a specific distance and wait until the action comes within that range of focus. Thirty feet is the distance where you will find that the majority of your shots will present themselves. However, this means that your shots must be much more exacting because your lens depth of focus is greatly diminished. Consequently be careful that your shots are within the range of focus of your lens!

Calculating depth of focus (also called depth of field) is relatively as easy as finding the hyperfocal distance. It employs only the simplest of mathematics. However you must have your hyperfocal distance chart before you.

LONG FOCAL LENGTH LENSES help get action shots that might otherwise be lost. This one (*at left*) was made at a distance of forty yards with a Series D Graflex equipped with a 12" Teletessar lens. Focusing on the anticipated point of action is the best plan when using this type of equipment.



Depth of focus is commonly defined as the *range of focus* within which all objects within and beyond the focused distance appear to be acceptably in focus when the camera is focused upon a particular point.

Pages and pages could be written upon how to arrive at the resultant simple formulas for calculating this range, but to keep from confusing the issue the formulas are given as:

$$L_1 \text{ (far-depth of field) } = \frac{(\text{Hyperfocal distance}) \times (\text{object distance})}{(\text{Hyperfocal distance}) - (\text{object distance})}$$

$$L_1 = \frac{h \times s}{h - s}$$

$$L_2 \text{ (near-depth of field) } = \frac{(\text{Hyperfocal distance}) \times (\text{object distance})}{(\text{Hyperfocal distance}) + (\text{object distance})}$$

$$L_2 = \frac{h \times s}{h + s}$$

Now let us apply an example to this formula. We are using a 10-inch lens, 1/700 of a second at F:16. In this case we set our focus at 30 feet, the distance previously discussed as that point where our shots most frequently occur. Our hyperfocal distance as previously determined is 52 feet at F:16. Then:

$$L_1 = \frac{52 \times 30}{52 - 30} \quad L_2 = \frac{52 \times 30}{52 + 30}$$

$$L_1 = 70 \text{ feet } 10 \text{ inches} \quad L_2 = 19 \text{ feet}$$

Under these circumstances all objects will be relatively sharp from 19 feet to 70 feet 10 inches, which incidentally is considerable depth of field. I say relatively sharp, for these formulas depend upon the circle of confusion of your lens, consequently the greater you "blow up" your shots the more the objects within the depth of focus will appear to be out of focus. However, for all practical purposes you are quite safe in applying these formulas.

Shorter lenses have the advantage of increased depth of focus, but require greater "blow ups" because of decreased size of the image on the negative. I would recommend that the beginning photographer in the sports field stick to the shorter lens until he becomes adept with it, then try a longer lens.

I do not imply that all of the shots should be made with the focus set as stated above. Most certainly, focus at

every presentable opportunity. The majority of these opportunities come when the action is at the goal line and the photographer is behind the end zone. This is a fine chance to focus on the goal line and grab the action just as the ball carrier scores, catching the peak of action and interest. Watch your local papers and see how many times shots like this are used. In cases such as this you can drop your shutter speed down and stop down to a smaller F: number, giving greater depth of focus. It takes less speed to stop action coming right at the camera than at any other angle.

When using a Speed Graphic don't attempt to use the tubular view finder; use the wire finder. You will find it much easier to get good shots. The tubular finder reduces the scene viewed to such an extent that it is practically impossible to tell what is a good shot when you see it. The wire finder does not have the parallax correction, but the distance from lens to object is great enough so that the parallax problem is minimized.

When using a Graflex with longer focal length lenses (12 to 20 inches) from the sidelines the work becomes much more exacting, requiring considerable skill and experience. The simplest way to utilize a lens of this focal length is to focus on the point of anticipated action. If, when the ball is snapped, a picture presents itself at the anticipated point, grab it! A bigger job still is trying to follow the play and keep the ball carrier in focus with long lenses, and sometimes hazardous too! I have seen more than one photographer bowled over because he was looking into his mirror viewer trying to find the ball carrier when actually the play was right on top of him. Consequently, when using this type of equipment, play it safe. If the shot doesn't materialize at the point of focus, look up from your mirror and be sure that the players won't land on top of you; it's much healthier.

Long lenses may also be used to shoot the overall play from the stands. In this case, somewhat slower shutter speeds may

(Continued on page 145)



FOOTBALL CAMERA TECHNIQUE helped to record this outstanding football action. Notice that all players are in focus from the foreground to the background. This was a "grab shot"; lens set on hyperfocal distance.

ANGLE SHOTS from the stands are useful in studying offensive tactics as well as defensive play, particularly pass plays. Slower shutter speeds may be employed from this vantage point. Shot with Series D Graflex, 12" lens.



Winners

NATIONAL HIGH SCHOOL PHOTOGRAPHIC AWARDS

"EXPERIENCE is the best teacher" repeats a current advertising message. The photo-experience developed by our high school students from Pawtucket, R. I. to Olympia, Wash. is uncovering a wholesome lifetime hobby as well as the groundwork for tomorrow's top professional photographers. Proof that these students are learning their lessons well, is seen each year in the "final exams"—the *National High School Photographic Awards*. A representative group of fourteen prize winners appear on the following pages; you may want to try your hand at picking the best of the lot before you read the credits below. MINICAM wishes to congratulate these young photographers.

Judges for the 1947 contest were: Helen Hayes, famous star of stage and radio, and amateur photographer; Norman Rockwell, artist and illustrator of human interest subjects; and K. W. Williams, Manager, Photographic Illustrations Division, Eastman Kodak Company.

J. Michael Conner, a nineteen-year-old graduate of Baltimore's Loyola High, captured First Prize of \$100 in the class for babies and children in addition to the Grand Prize of \$500 for the best photograph entered in the competition. Mike says, "The six hundred bucks will help a lot in meeting my first year's expenses at Loyola University." (*Next month, Brinsfield King tells how to make a camera help pay one's way through college.—Ed.*)

1. "That's One On You!" by Robert Grenier, Holyoke (Mass.), High School—Second Prize (\$50) Class 1—Babies and Small Children.

2. "Good Mornin', Mom" by Arties Schatz, Abraham Lincoln High (Brooklyn)—Third Prize (\$30) Class 1—Babies and Small Children.

3. "Dance" by John S. Baran, Lakeview High School (Chicago)—Third Prize (\$30) Class 3—Hobbies and Recreations.

4. "Rock and Waves Meet" by Donald Bowman, San Benito County High School (Hollister, Calif.)—Third Prize (\$30) Class 2—Scenes and Still Life.

5. "You're Out!" by Tom Hanlon, Dowling High (Des Moines)—Second Prize (\$50) Class 3—Hobbies and Recreations.

6. "Air Borne" by Lee Hunting, Alexander Hamilton High (Inglewood, Calif.)—Second Prize (\$50) Class 4—Animals.

7. "On Stage" by Arthur Bilek, Lopola Academy (Chicago)—Second Prize (\$50) Class 5—School Projects.

8. "Forecast of the Future" by Roland Rippel, Metropolitan Vocational High (New York)—First Prize (\$100)—Class 5—School Projects.

9. "Looking the World Over" by Donald Bowman, San Benito County High (Hollister, Calif.)—First Prize (\$100) Class 4—Animals and Pets.

10. "Meditation" by William R. Bishop, Rhodes Preparatory School (New York)—First Prize (\$100) Class 2—Scenes and Still Life.

11. "Finishing Touches" by Henry Humphrey, Friends Seminary (New York)—Third Prize (\$30) Class 5—School Projects.

12. "Hit It!" by John Allen Astin, Woodrow Wilson High (Bethesda, Md.)—First Prize (\$100) Class 3—Hobbies Recreations.

13. "Spring Tools, Winter Snow" by Frederick Sincock, Mackenzie High School (Detroit)—Second Prize (\$50) Class 2—Scenes and Still Life.

14. "Young Mariners" by J. Michael Conner, Loyola High School (Baltimore)—Grand Prize (\$500) plus First Prize (\$100) Class 1—Babies and Children.





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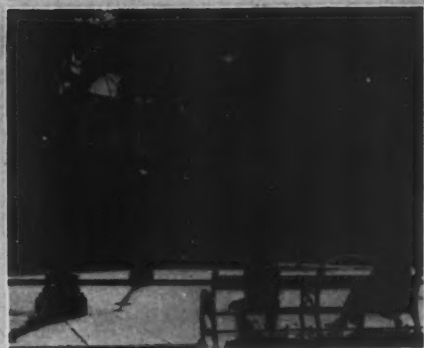
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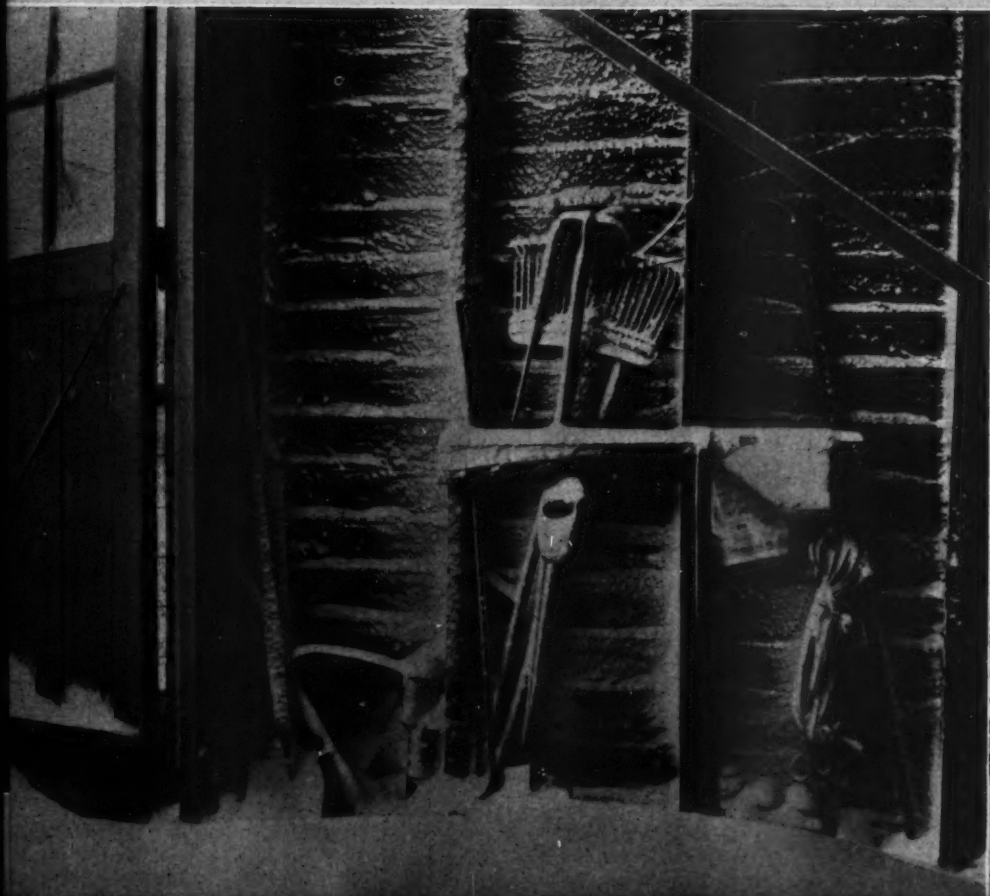


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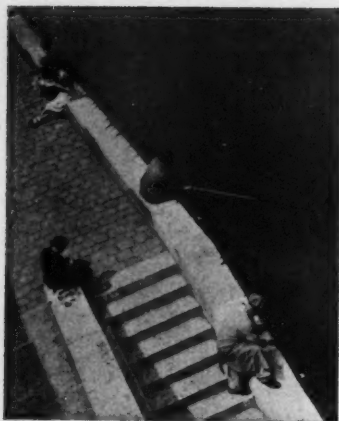


12

13







"Paris was always the most hospitable of cities, the most tolerant toward strangers, whether the visitors were idlers, traders, artists, or intellectuals."

To photographer Fritz Henle—

PARIS IS PEOPLE

TEXT BY RALPH SAMUELS

ILLUSTRATIONS BY FRITZ HENLE

CHANCES are that if all the books written about Paris were laid end to end, they would form a line stretching from the top of the Eiffel Tower to Madame de Pompadour's old mansion in Fembourg Saint-Denis. Even more bewildering would be the problem of selecting a few from this enormous pile as guides to the city, whose meanderings through history have been as stormy as our own, and whose contributions to the seven lively arts have profoundly affected the civilized world.

To most of us, leaning heavily on our high school history books or an occasional "period" movie, Paris is a city of fine Gothic cathedrals, sidewalk cafés, women's fashions, art colonies, Bohemians, and a strange language. Paris was the scene of a revolution, cradled Napoleon, Voltaire, and Thomas Paine, hated the English, and loved its liberty, its women, and its fine wines—all with the same consuming passion.

To Fritz Henle, Paris is its people. In his latest (now his fourth) book of photographs—"PARIS"—the usual landmarks are conspicuous by their absence. No impressive monuments or familiar guide-book hocus-pocus or sidewalk artists, no

Arc de Triomphe or Champs Elysees, not a trace of the Opera House, Tuilleries, the Louvre, or Montmartre. Not even, heaven forgive him, the Eiffel Tower! This is certainly not a book for those who travel abroad via Cook's Guided Tours, or the two-for-a-nickel colored picture postcards. In fact some of it isn't the least bit pretty. No large city is—at least not to the practiced eye of an honest photographer.

It's a two-to-one shot that Fritz Henle and Elsa Maxwell do not see eye to eye on the capital of France; nor on the capitals of England, Mexico, or our own United States for that matter. The reason is simple: their points of view are different. Henle's Paris is not only the stuff of centuries, of flower stalls and incursions, or a certain spot where a hard-boiled queen told her attendants to "let 'em eat cake." Obviously, he wanted to talk about something more—the inhabitants—the types, the faces, the work, the pleasures, the infinite variety of pursuits: the worker, aristocrat, priest, housewife. In the larger sense, it is a symbol of the city, reaching out and commenting, "This is another side of your face." As such, it becomes, within the scope of its limita-

"... mostly cheese . . . and in the doorway a small dramatic moment is occurring—one of Mr. Heple's deft throwaways which make his inanimate studies human, and his humanity mechanically wholesome."



tions, something of a social document.

His photographic commentary, like his technique, deserves serious attention, especially from those devotees who seek to improve or enlarge their own particular skills. Photography, like any other language, can interpret or teach or moralize; or, like certain kinds of music, just entertain. Obviously, Fritz Henle's search for another kind of Paris led him away from the confines of familiar places, away from the European equals of the Empire State Building and Fifth Avenue and Broadway. Yet his Paris is as much an integral part of that city, as the fire-escapes and lower East Side and saloons are important to Weegé's impressions of New York.

There's an interesting object lesson here for those who travel with a camera. The method doesn't have to be copied, but it's

well worth studying. There's much more to the state of Arizona, for example, than the Grand Canyon. And for every shot of the familiar Rockies or the familiar Navajo Indians you pick up in New Mexico, there are a hundred others of places and people that we're not so familiar with, others that might portray even more of the spirit of a place. Try it out on your own hometown someday, and see if you don't surprise even yourself with the results.

The text accompanying the book is written by Elliot Paul, best known by his "*Life and Death of a Spanish Town*," and more recently, "*The Last Time I Saw Paris*." While here and there his explanation of the pictures waxes sentimental, it is no doubt because Paris holds a good share of sentimental attraction for Mr.

"Watch the priest, a fairly young one, walking up the slope of the Montmartre near Sacre Coeur, reading his office."





"Two thoughtful men sit in the foreground, without glancing at one of the world's gems of ecclesiastical architecture, the west arched doorway of Notre-Dame . . ."

"Two old women delve into a coffer of memories . . ."
(next page.)

VIANDOX
SOLIDE

Cuisine facile économique meilleure

VIANDOX
SOLIDE







"The eloquent little corner café could be around the Place de la République or the Place Clichy where the class-conscious industrial workers and day laborers pause for refreshment."

Paul. He spent the most impressive years of his life there.

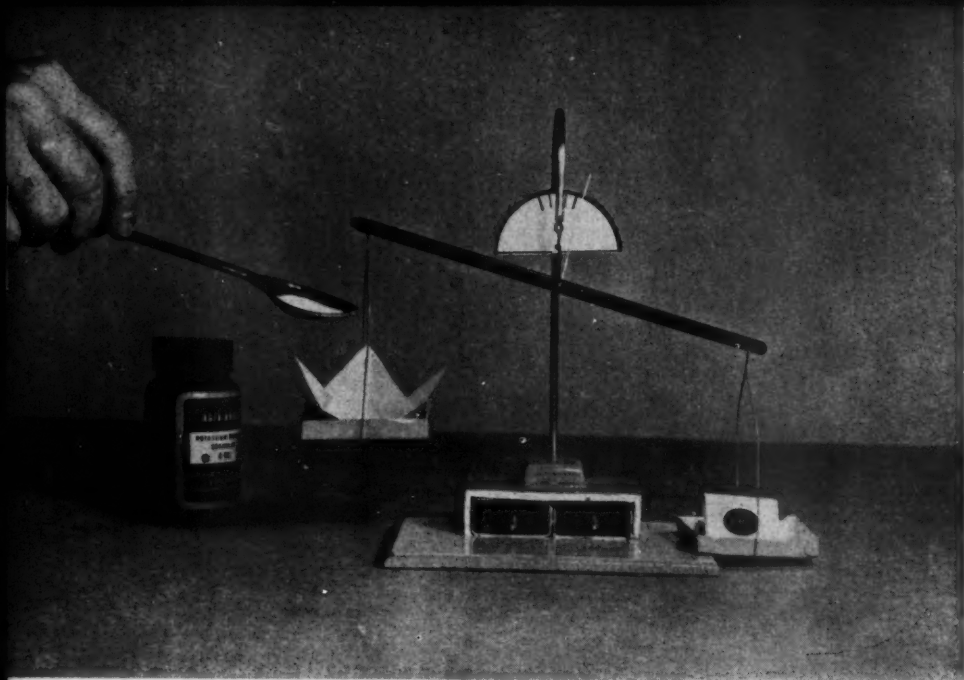
If some of these pictures do not reflect the spirit of a nation ground beneath the

heels of the Nazis, whose homes were reduced to dust and its citizens to slaves, that is not the fault of Henle. Paris was not then at war. Elliot Paul explains:

(Continued on page 144)

"The conclusion is a nocturne, a reminder, a promise as sure as the rainbow, an AU REVOIR but not goodbye."





BUILD YOUR OWN DARKROOM BALANCES

By E. PETER SMITH

IF YOU yearn to mix your own formula concoctions, but do not care to invest in a set of manufactured balances, you can easily build a set that will be entirely practical in use.

The materials will cost very little, requiring but ten inches of heavy soft wire about $\frac{3}{16}$ " diameter, 28 inches of $\frac{1}{16}$ " soft wire, twenty square inches of tin plate, a base board ten inches square, some odd pieces of cigarbox wood, two penny match boxes, and a piece of rather heavy gauge black iron or similar material. The latter is for the balancing beam and should be about 8 inches long and $\frac{3}{8}$ -inch wide.

Shape the heavy wire into a gooseneck and drill a $\frac{1}{16}$ " hole near the end of the short leg of the loop, from which will be suspended the beam of the balances.

Cut an eight inch length of the black iron for the beam as shown in the illustration, and drill a $\frac{1}{16}$ " hole at dead center, but near the top, so that the beam will hang perpendicular. The holes for the pan wires should be drilled near the bottom of the beam for the same reason. At this point in construction, suspend the beam and test it for perfect balance, making any adjustments required. It is much more satisfactory to balance each step before proceeding to the next.

Next, cut two 3" squares from the tin plate; the weighing pans will be fashioned from these. After scribing a quarter inch margin along each edge of the squares, clip and notch the horizontal sides of each square as shown in Fig. B. The notches make it possible to turn up the rims of

(Continued on page 141)



RIGHT AROUND HOME... there's a world of color... gay, sparkling, heart-warming color just waiting to be caught by your camera. So why confine yourself exclusively to black and white? Spice up your work with Kodak color. Exposures are so simple, you can count on beauties right from the start. And remember—there's a Kodak color film for

virtually every camera. Kodachrome Film for most miniature, sheet-film, and home movie cameras... Kodacolor Film for most roll-film cameras... and now the latest of Kodak's long list of color successes—Ektachrome Film in sheets, for processing in your own darkroom.

IT'S KODAK FOR COLOR

Kodak

BULLETINS

NEWS OF KODAK PLANS AND PRODUCTS

Christmas Greetings

Some wise and prudent camera hobbyists already have the Christmas greeting situation well in hand. But for the perpetual "putter-offer," each day merely brings the annual greeting crisis a bit nearer.

This year, Kodak has an exceptionally full budget of Christmas greeting aids—items to help you produce your greeting cards neatly, efficiently, and in plenty of time for safe mailing.

For instance, there's a brand-new No. 20 Series of Kodak Greeting Card Masks—line negatives

with an opening for inserting your personal negative. There are four masks, which yield the card designs illustrated below. Each is intended for use with a $2\frac{1}{4} \times 3\frac{1}{4}$ negative; and production is rapid—contact printing. Masks are 85 cents each, plus tax.

Other Designs

Many photofinishers will have a selection of still other masks. If you haven't time to do your own cards, just pick your negative, take it to your Kodak dealer, select the card style you prefer—and that's that. It solves the problem inexpensively, and saves your darkroom time for a few more exhibition prints.

Even simpler, perhaps, is the use of Kodak Christmas Mounts or Kodak Christmas Folders. The Christmas Mount is a folder with a greeting on the cover, and a die-cut opening inside, behind which you mount your selected print. Three sizes—for 620, 616, and 127 prints—all very neat and attractive—and each mount, complete with matching envelope, costs only 5 cents.

The Christmas Folder is similar, but has a greeting both on the

cover and inside. Your print inserts in a die-cut opening in the cover. These, too, with matching envelope, cost only 5 cents each.

Color, Too

This year, more photographic Christmas cards will be in full color—and greeting folders will be available for both Kodachrome and Kodacolor Prints. Horizontal and vertical formats are available in all of the popular Kodacolor Print sizes, and in sizes for 2X and 3X Kodachrome Prints.

When six or more Kodachrome Prints are ordered at one time from the same original, there's a definite price advantage. Greeting folders for color prints will be sold singly or in even dozens. And the price, with envelopes, is extremely modest—60 cents a dozen, 5 cents each.

Special Helps

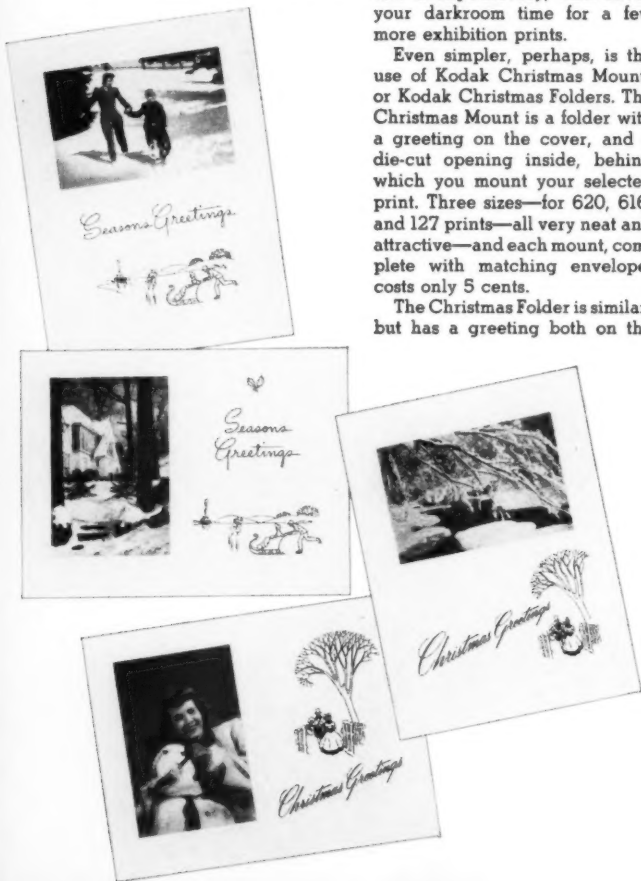
For the amateur who produces his own photographic greeting cards, Kodak dealers will also have certain special aids.

The Kodak Edge Tinting Outfit is a handy, inexpensive kit for adding touches of holiday color to black-and-white greeting cards. It consists of two-ounce bottles of red and green tinting ink, four special felt nibs, and a nib holder, similar to a penholder. The price is \$1.50.

For an additional luxurious touch, the Kodak Embossing Guide is available at 75 cents. This is a plastic guide for making plate-sunk effects on greeting cards, similar to the effect produced by an etching plate.

Booklet Available

For those who wish to create something special, there's a useful Kodak booklet, "Photographic Greeting Cards." This publication offers pertinent guidance on technique, methods of combining line and continuous-tone negatives, adding signatures and messages, evolving greeting card ideas, types of folding, hand tinting—a complete production guide. It's free of charge, and is punched to fit the Kodak Photographic Notebook. If you'd like a copy to help you plan this year's cards, write to the Sales Service Division, Eastman Kodak Company, Rochester 4, N. Y.



WINTER'S NOT TOO FAR AWAY...

—and now's the time to put your darkroom in order, for the evenings of print making ahead. Here's a check list of Kodak chemical preparations you'll probably need.

DEVELOPERS

There are four grand Kodak prepared developers for prints (and two of them handle negatives, too) . . . Handiest of all developers, when only a small quantity is needed, is the *Kodak M-Q* packet. Inexpensive, it holds just the right amount of chemicals for a good-sized batch of contact prints . . . *Kodak Versatol* is the ideal liquid all-purpose developer; it yields superb results with all modern films, plates, and papers—and for tray use, it's simply diluted 1 to 3 with water . . . *Kodak Dektol*, the improved D-72 type developer, is immensely popular for its high print capacity, its clarity after considerable use, its development rate that doesn't slow down appreciably with use, and its excellent keeping properties. It's especially good with fast papers such as Kodabromide . . . *Kodak Selectol* is a fine warm-tone developer, especially suited to such papers as Kodak Opal and Kodak Platino.

And for negatives, of course, when you want to retain emulsion speed yet obtain the finest possible grain, it's *Kodak Microdol Developer*. This is exclusively a developer for negatives, not for prints.

FIXING BATHS

Kodak Rapid Liquid Fixer With Hardener is the most convenient of fixing baths. Since it's already in liquid form, and needs only dilution with three parts of water, it gets you going in a hurry. Primarily for films and plates, it can also be used with papers . . . *Kodak Acid Fixing Powder With Hardener* is an improved single-powder preparation for use with all films, plates, and papers . . . To conserve the fixing bath, a "stop" bath is desirable, and the *Kodak Acid*

Stop Bath With Indicator is an unusually desirable type; as the solution approaches exhaustion, it changes color, thus warning that the bath should be discarded . . . For those who prefer to mix their own acid stop bath, *Kodak Acetic Acid 28%* is also available.

Thorough fixing in a reliable fixing bath is essential if prints are to be permanent. To make sure the fixing bath is not exhausted, careful workers utilize the *Kodak Testing Outfit*. A few drops of one solution placed in the fixing bath will cause the formation of a heavy yellow precipitate if the bath is exhausted. Another solution is used to test the stop bath; a few drops, and the stop bath turns purplish if the acid is exhausted.

REDUCERS

Skillful dodging takes care of many negatives that are "off" in exposure or development; others call for special aid. *Kodak Farmer's Reducer* is a classic for correcting negatives which are too dense, and for cleaning and sharpening line work in negatives and slides. It helps cut away fog; negatives then yield clearer, brighter, crisper prints . . . *Kodak Abrasive Reducer* is an extremely convenient, paste-form reducer for rapid local, mechanical reduction. It's very handy for overexposed faces in flash shots . . . For the occasional negative that requires building up, *Kodak Chromium Intensifier* is safe, reliable, and yields a stable image.

SPECIAL AIDS

Important among special print-making aids are the Kodak prepared toners: *Kodak Rapid Selenium Toner*, for warm-tone papers such as Kodak Opal; *Kodak Sepia Toner*, for per-

manent warm brown tones on cold-tone papers such as Kodabromide and Velox; *Kodak Blue Toner*, a cold blue toner for use on the warm-tone papers, and the new easy-to-use *Kodak Brown Toner*, for warm brown tones on many popular papers.

Kodak Photo-Flo is a wetting agent that reduces the surface tension of water; use it before drying films, ferrotyping prints, or drying prints on cheesecloth . . . *Kodak Anti-Calcium* may be added to developers to minimize hard-water calcium sludge . . . *Kodak Anti-Foam* prevents surface froth; one or two drops from the shaker-type bottle, and your processing baths are safer, your prints protected from air bells, spots, and certain stains . . . *Kodak Anti-Fog No. 1* is helpful when films or papers show fog from age or bad storage, or have been stored between exposure and processing, or require forced development. It comes in handy tablet form . . . And *Kodak Print Flattening Solution* is particularly helpful in winter, when the air indoors is warm and dry; this solution keeps prints flexible, and prevents curling, cracking, and excessive drying.

All these Kodak chemical preparations are backed by years of painstaking, exhaustive research, and wide practical experience. Each is compounded to fill a specific need; together, they provide a battery of aids that will make your winter's darkroom work more fruitful, more satisfying.

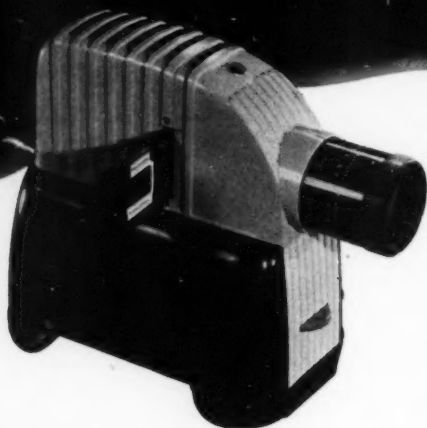
See your Kodak dealer

KODAK products are sold through Kodak dealers, any of whom will be glad to complete descriptions of Kodak products which are mentioned in these pages. Usually, too, they will give you opportunity for firsthand inspection of the advertised items.

In matters of general photographic information your Kodak dealer will be found to be well and soundly informed.

Prices subject to change without notice

Kodak



**THE NEW
1000-WATT
KODASLIDE
PROJECTOR
Master Model**

Glorifies your Color Shots in Home or Auditorium Projection . . . lights them with the radiance of life. Delivers more illumination to the screen than was ever before possible with any 2 x 2-inch slide projector. You'll find shadow detail you never dreamed was there . . . all the depth and richness of color kindled by the summer sun . . . charmed onto the screen for you by intense but safe light, and by sharp, speedy Kodak lenses.

Versatile . . . for gay color shows at home . . . for exacting professional lectures . . . for superlative projection *anywhere*—living room or auditorium.

Fast Lenses and Powerful Lamps . . . snap a vivid image onto the screen even in a room only half dark. That's a great help for programs at your club, school, or church. The crisp image is brilliant throughout; no dingy corners or hot-spot center.

Entire Optical System Lumenized . . . Condensers and projection lenses are *Lumenized* to supply maximum light. A new type of heat-absorbing glass passes 85% of the light, blocks 85% of the heat . . . and it's one solid piece of glass, leaving no black streaks on the image.

Five Superb Kodak Projection Lenses . . . for theaters and auditoriums, the powerful 11-inch $f/3.7$ Kodak Projection Ektar; for club, church, or school, a $7\frac{1}{2}$ -inch lens—the $f/2.3$ Ektar

or $f/4$ Ektanon; for home shows, a 5-inch lens—the $f/2.3$ Ektar or $f/3.5$ Ektanon.

Protects Kodachrome Transparencies . . . A quiet turbine-type fan in the base forces cool air *three ways*—to the lamp, condenser system, and both sides of the slide. Your slides keep cooler than with many 150-watt projectors—even when the 1000-watt lamp is used (other lamps also available) . . . Eastman Kodak Co., Rochester 4, N. Y.

See the Master Model demonstrated at your Kodak dealer's—and be sure to get the descriptive, full-color folder. It's free.



Price, including carrying case, \$181 to \$295, depending upon choice of lens

Kodak



Let's check your

FOCUS



BY CHARLES SMITH

BLURRED OR FUZZY prints can be a major headache to any picture-maker until he roots out their cause and remedies it. If the fuzziness is caused by camera movement, or by movement on the part of the subject while an exposure was being made, the solution is simple. A tripod or other firm support for the camera will take care of the former; a faster shutter speed or a motionless subject will solve the latter. But if a print is fuzzy for some other reason—yet the photographer is certain he was in focus according to his rangefinder when the picture was snapped—a thorough checkup on his equipment is indicated.

How to Check Your Camera

There is no panacea for a fuzzy image. If there is an out-of-focus image in a

negative you will be stuck with an out-of-focus image in your print. A texture screen laid over a sheet of photographic paper may create an illusion of semi-sharpness in the resulting print but this is a "last straw" salvaging resort and has nothing to do with finding out what originally caused the negative to be out of focus.

The focusing scale or rangefinder should be *Suspect No. 1* on a camera that consistently turns out unsharp negatives. There are several ways of checking focusing scales and rangefinders, one of the simplest of which is to run test photos of a number of markers set up at various distances from the camera lens. Large numerals cut from o'd calendars, or hand lettered numerals, can be attached to stakes driven in the ground at measured inter-



A SIMPLE set-up for checking a focusing scale or rangefinder. Test photos (see opposite page) are made of numerals placed on stairs steps at measured distances from the camera lens.

vals, fastened to a long wall, or laid on a stairway as shown in the illustrations. The distance between the numerals and the camera lens should be in accordance with the distances indicated on the camera's calibrated focusing scale.

To make test negatives, open the camera lens to its widest aperture or stop. Then photograph each numeral in turn according to the indicated markings on the camera's calibrated focusing scale. When your test negatives are printed you can tell at a glance whether or not your lens and calibrated scale are in perfect adjustment. If a numeral that should be sharp at a given distance appears blurred, your camera is in need of adjustment. This same test is as important for range finders as for focusing scales, for they too can get out of order. Unless you are familiar with camera repair work, don't undertake to make radical adjustments for correction yourself. Let an expert repairman do it—you'll find it's cheaper in the long run.

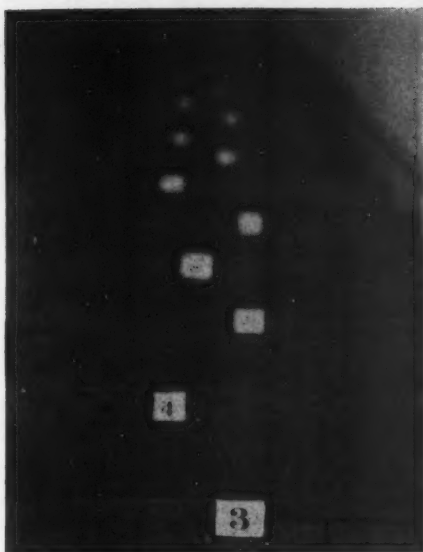
Not all blurred images due to equipment malfunctioning can be blamed upon focusing scales or range finders. It's a good idea to check your lens elements to see that they are not loose, the lens mount to see that it is not wobbly, and to make certain that the ground glass—if your camera is equipped with it—does not have excessive play. Any one of these faults can play hob with your camera performance.

How's Your "Measuring" Eye?

Supposing your tests prove that the focusing scale, rangefinder, lens elements and everything else are in good mechanical condition—but you still get blurred images. If further checks show that a fuzzy image results when there was no possibility of camera or subject movement during an exposure, *Suspect No. 2* should be your measuring eye.

In practice, successful use of a focusing scale often depends upon a photographer's

(Continued on page 135)



FOCUSING SCALE AT 3 FEET

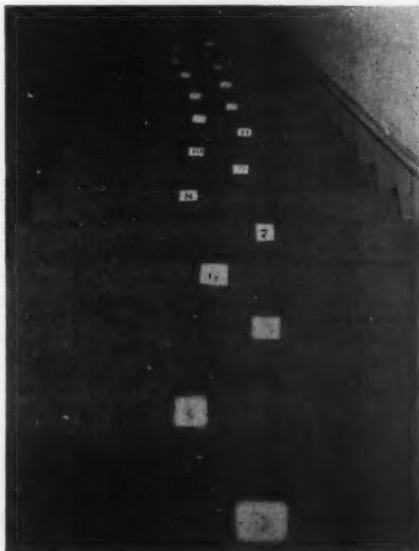


FOCUSING SCALE AT 6 FEET

TEST PHOTOS, shot according to the various markings on a calibrated focusing scale, will look something like this. Test shots should be made with the camera lens at its widest possible aperture. Don't be too quick to condemn your

focusing scale or rangefinder when a numeral that should be sharp at a given distance is fuzzy instead. First make sure there are no loose lens elements or excessive play in other parts that can distort sharpness.

FOCUSING SCALE AT 8 FEET



FOCUSING SCALE AT 11 FEET





MARK
WARREN

The Models' Guild of Philadelphia

By WALTER IAN FISCHER

How a new organization, operated by the models themselves, has discovered the key to better model-photographer cooperation.

MOST of today's models are as far behind the times as a wet plate camera."

So say photographers in general from Hoboken to 'Frisco, but in Philadelphia recently the criticism brought results. Here the models abruptly took the bit in their teeth, formed an organization of their own called the Philadelphia Models' Guild, and set about nailing the complaint with the finality of an undertaker fastening down a coffin lid.

With a membership now numbering 135, Guild models take office work and bookkeeping in their stride along with regular modeling assignments. In addition, they hold their own instruction classes with local authorities in the modeling and photographic professions as instructors. In common with Philadelphia's amateur and professional photographers, they believe that today's trend is away from stiff, stylized poses of super professional models who strive to emulate wooden mannikins. "We want girls with fresh, clean-cut beauty," local cameramen have pointed out. "We are looking for models who are willing and able to follow instructions, whose natural charm will follow through to the finished picture."

These are the requirements the Guild has set up as its target. Besides photogenic young ladies in the 16 to 28 years age bracket, the group (now in top position among model organizations in Philadelphia) also includes male and matron models plus those who specialize in hands, legs, character, age (babies to grandmas), figures, etc. The pretty girl with the big smile and terrific shape, the kindly old grandmother, the baby that gurgles happily, and the sophisticated lady who looks

equally bored in mink or velvet . . . these plus countless other types are the models. Without them, toothpaste and soap would pile up in warehouses and everything from soup to floor wax would take a nosedive.

Models Vs. "Muggers"

Indispensable though models are, they also present a problem. The very word "model" is the root of this problem because it is ambiguous. For every school or agency genuinely qualified to train models for professional careers there are dozens of parasite outfits eager to lure hopefuls into their classrooms with double-talk. The latter use flattery and glittering promises of fabulous earnings as bait and dangle it before prospective enrollees regardless of their actual qualifications. The net result is that for every graduate of an organization that has really taught a model his or her art, there are dozens of graduates from the glamorized "mugging" academies. Photographers, artists, and store managers in many cities are constantly besieged by diploma-bearing hopefuls whose practical knowledge of modeling literally begins and ends with the opening and closing of a make-up box.

What constitutes the main difference between a good model and a poor model? Many top-notch photographers bluntly state that it's a matter of kilowatt brainpower. Physical and photogenic qualities are, of course, important. But where a physically perfect—but dumb—model can be a total flop, a smart model knows how to more than compensate for slight physical shortcomings. In addition to knowing the finer points of posture and carriage, a good photographic model actually studies photography to the extent of knowing



PROFESSIONAL photographers like to work with dependable models who sense some of the photographic problems involved and who follow direction intelligently. Guild member Tottie Hayden posed for this commercial shot.

something of the problems involved in picture-making. The professional photographer has need of models who are dependable, who can *sense* what effect he is striving for, follow instructions intelligently, and fulfill assignments at reasonable rates. The amateur needs models of the same calibre, who understand the amateur's position in photography. A smart model knows that some of the world's best photographers maintain an

amateur standing, and that posing for amateurs of good repute at prices they can afford to pay is in no sense of the word "charity" work.

How the Guild Came to Be

The Philadelphia Models' Guild owes its existence to local commercial photographers and the American Museum of Photography as well as to the initiative of its own members. When Philadelphia

commercial cameramen became fed up with what they considered to be shortcomings in the local model situation, they took their troubles to the American Museum of Photography. That organization came up with a solution that resulted in the Philadelphia Models' Guild hanging out its shingle in Sept. of 1946. The Museum itself became headquarters for the group and Mrs. Alice M. Sipley, wife of the Director, took over the duties of secretary.

How the Guild Operates

In many respects, the Guild is similar to professional associations organized by doctors, engineers, photographers and the like. It is run cooperatively by the models

themselves according to a constitution that provides for officers, outlines their duties and terms of office, and sets up the procedure for meetings and classes. It also sets modeling rates, membership dues, and specifies the manner in which members are admitted . . . all of this we'll discuss more thoroughly in a moment.

After each regular monthly meeting there is either an instruction class or a lecture by a recognized authority. Here the models receive tips on various problems which arise in the field of modeling: (white base make-up for bags under the eyes, or better yet, more sleep), photography: (unless otherwise instructed cross legs away from the camera), fashion: (always carry an extra pair of stockings),

"THERE ARE two main rules about hands," stresses professional photographer Michael Denning during one of the regular monthly meetings of the Guild. "First of all, if they have a job to do in the shot, make it look real. If

you have to hold a prop . . . well, hold it! Don't sit there as if it's just annexed to your hand and you don't really have anything to do about it. Secondly if they don't have a specific job, relax them in an inoffensive position."



advertising: (look sincere about the product).

Around every cracker barrel from Cross Corners to Broadway, the boys in the know will tell you that a photographic model receives more passes than a Yale quarterback.

"Taint so!" say the girls of the Models' Guild. Let one studio or amateur photographer step out of line and thenceforth his name is mud with the Guild. Fiction story models, glamorous hatbox-in-hand creatures with empty heads and conveniently flexible morals, would find it rough going in the Guild if, by accident, they gained admission in the first place. Guild models, many of whom have regular jobs on the side, are expected to learn the essentials of modeling by serious application. Overall fundamentals are taught through instruction lectures; photography is approached

from the angle of learning to interpret what the photographer is striving for in mood and expression — and then fulfilling it. The net result is that although some girls specialize in only one particular field (hands, hosiery, fashion, figure, etc.), many learn to handle several phases of modeling — a versatility that pays off in their bank account.

Admission to the Guild

Let's trace a typical applicant whom we'll call Betty through the membership procedure. Betty can be any age between 16 and 28, has an attractive face, is anywhere from five feet four to five feet eight, and her measurements run the accepted pattern of bust and hips 33 to 36 with a waist about ten inches smaller. Her weight is proportional so that she takes the ideal dress size of 10 to 14 and

JOAN MILLMAN as she appeared before the judging committee which is made up of photographers, fashion stylists, and advertising men. Joan had to have the okay of two or more of the three groups before she could be admitted as a member. P.S. She made it!



she knows how to choose and wear clothes well with a natural easy poise. Betty has thought it over carefully and feels she would enjoy modeling, so she applies for membership.

After a while she gets a notice from the Guild that she is to report before the judging committee at such and such a time. She goes and waits her turn with perhaps thirty or forty other hopefuls. Finally she is given the nod to walk into the room where the judging committee sits in a semi-circle at the far end.

The committee is made up of fashion stylists, photographers, and art directors. They watch Betty very closely as she enters. They check her stance, see if her hair is becoming but not too fussy, and notice whether she has natural grace. Then they inquire into her previous experience and background and study the photographs she has brought along.

After she leaves, the committee takes a vote. Let's suppose that Betty was lucky and got an okay from both the photographic and fashion departments. Next day she receives word that the Board of Directors have admitted her to the Guild. That is the green light for Betty to pay her first year's dues and fill out a set of data cards. These cards list such information as her measurements, the hours when she is available, and the type of modeling she would like to do. *(Each model pays yearly dues of \$25 for active membership or \$10 for associate members. All money received from assignments goes to the model. No cut is taken out for the services of the Guild.—Ed.)*

Next, Betty is sent to one of the eleven professional photographers who are affiliated members of the Guild for her test shots. The photographers, as members of the organization, have voting privileges, may attend meetings, and have complete files of all Guild models in their studios for their own personal convenience. Betty was taken in as an active member and gets three pictures. If she were associate, it would be only one. The eight by ten prints are assembled in sets together with data cards. One set goes to Betty, another



ORIGINALLY DESIGNED for the use of professional photographers, the static shot of Jessie Light (above), was passed right over by those less accustomed to judging photographic possibilities. Because of this, the Guild changed their system, introduced complimentary lighting with an action pose more in keeping with the type of work in which the model specializes. The logical pose for Jessie, who does Junior Miss fashion work, was an outdoor sweater shot.



complete set goes to each of the eleven photographers. Two sets are kept at Guild Headquarters for the use of other customers who telephone for models or come in to look through the folders.

Financial

When a model pays her yearly dues, she has fulfilled her financial obligations to the Guild. For protection against chiselers the Guild has established standard minimum rates. Once a photographer, amateur or professional, hedges on paying the agreed rate, or keeps a model waiting without paying for her time, or calls for a general model (at a cheaper rate) and then tries to turn the job into cheesecake or figure work, he is labeled "poison" for Guild models.

Financially the amateur is in an entirely different position from the professional. Since photography is a hobby with

the amateur, no money comes back to him to replace that spent on equipment and materials. The amateur's work is of a different type, made for his own enjoyment or for salon or contest work, and as a rule he has to watch his pennies. For this reason, the Guild provides special rates for amateurs. The usual non-professional rate runs about \$10 for two or two and a half hours of posing including rest periods of about ten or fifteen minutes out of the hour. This is for general and costume jobs. Figure work comes higher . . . \$15 for a maximum of two hours with rest periods. However as non-professional work below the established scale is usually a separate deal between the individual amateur and the model, rates may run even lower upon occasion. Clubs, too, get special rates depending upon the number of members who are going to split up the

(Continued on page 124)

GLADYS STUDENROTH poses for the Photographic Group of Philadelphia during one of their regular studio night sessions. Using everything from studio cameras to the smallest of the

miniatures, club members turn out some of the top amateur work in the city. Recently the group inaugurated a policy of using Guild models almost exclusively.





GEORGE MATTIOLA saw model Peggy Deegan as a very sophisticated young lady. A 500-watt flood was used as a main light source, a smaller flood with diffusion screen for fill-in, another flood for back light and a baby spot for highlights on the hair. Camera was a 4x5 view, fast pan film; exposure 1/10th second, F:8.

PEGGY DEEGAN was posed by Ted Maunus as a spritely miss about to step out into a summer shower. His 9x12 cm Miroflex was loaded with portrait pan; exposure 1/5 second, F:11.

MATHEMATICS FOR MOVIE MAKERS

by Ormal I. Sprungman

AMATEUR movie making — indeed, all photography — is an exciting art. Guess at your exposure and distance and you'll probably wind up with fuzzy, badly exposed footage. Measure each scene with tape or range finder, calculate the proper lens stop with meter or exposure guide, and you'll get the crisp, sparkling results which characterize real cinematography.

WHEN FRAMING shots are used, foreground objects, such as the trees in this photo, must not be too close to the camera lens or they will appear too fuzzy. This is where a knowledge of your lens' depth of field is necessary to give proper definitions.—*Union Pacific Railroad Photo.*

But suppose you were suddenly deprived of all the fineries that make movie making such an easy pleasure, and once more you had to fall back upon primitive means of determining F: stops and shutter speeds. Would you be baffled?

Known to photography for many years are formulas and thumb rule short cuts which beginning button-pushers find helpful afield.

Calculating F: Stop

Suppose, for instance, somebody offered you a telephoto lens for your movie camera, but unfortunately the F: stops on the barrel mount mysteriously had disappeared. You could calibrate and inscribe your own F: stops very easily with the formula:

$$f = \frac{F}{D}$$

Here f is the F: stop, F is the focal length of the lens, D is the diameter of the opening.



THIS SHOT of an Isle Royale moose making a hurried exit from an inland lake was filmed at normal (16fps.) speed. If the action is slowed to 64 fps., how do you compensate with your F:stop? Remember, each time that you double your fps. you must open up your lens another stop to maintain correct exposure. If your answer is two stops it is correct.—*Photo and 16mm enlargement by the author.*



Suppose that the focal length of the lens was 3 inches, and the diameter of the widest opening was 1 inch. If you know two parts of your formula, the third is easily found by substitution. In other words,

$$F:\text{stop} = \frac{F}{D} \text{ or } \frac{3}{1} \text{ or } F:3.$$

When you closed the lens until the diameter measured only 1/2-inch, you could mark your F: stop F:6, etc.

Outdoor Exposure

All right. Suppose you amble out into a woodland setting where you normally

would click a still life Kodachrome at F:11, 1/15 second. However, you know that your movie camera has a shutter speed of 1/30 second at normal 16-frame-per-second speed. What lens stop would you have to use on your movie camera?

That's an easy one. If you double your shutter speed from 1/15 to 1/30, you have to increase your lens opening by one stop from F:11 to F:8 to compensate. There's a formula which covers this, too:

The amount of light reaching the film varies inversely according to the F: number or $(a \div b)^2$, in which a and b are the
(Continued on page 119)



THESE weird models of prehistoric animals atop a skyline drive in the Black Hills of South Dakota are interesting movie fare. However, if you are not careful and focus on the animal in the foreground the one in the background will be blurred, and vice versa. By focusing midway between the two and stopping down, where lighting permits, both will appear in reasonably good focus.
—*Photo by the author.*

**Minicam's
October
Picture
Section**





GREENWICH ART FAIR

GEORGE R. HOXIE

MEMOIRS OF PIERRE LOUYS

TOM YEE





BRETT WESTON

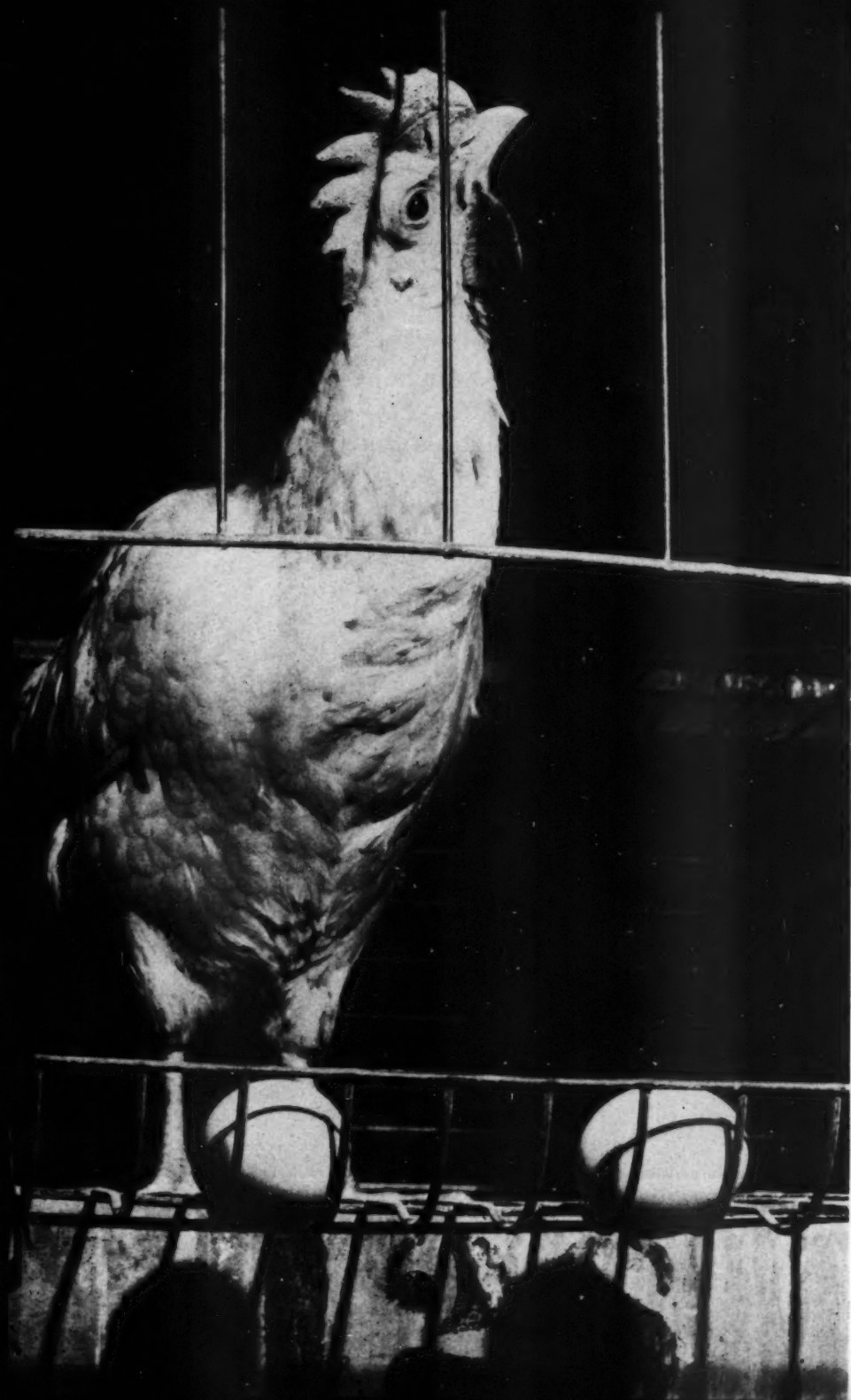


Photographs by Thomas J. Farkus

..... OF CABBAGES



AND KINGS





GREEK FARMER

MADAME NELLYS

PROUD HEN

JOE MUNROE

\$37.90 DARKROOM

By SIDNEY ROSS

THERE'S GOLD in the word "photographer"—at least carpenters seem to think so. In common with hundreds of other returned veterans anxious to get back into photography, my brother and I spent weary months trying to round up supplies and equipment. Finally we were ready to call in a carpenter for an estimate on some ordinary shelves to hold chemicals, and three waterproof tanks of wood. As soon as we mentioned "darkroom" a gleam came into our caller's eye and the well-licked stub of his tallying pencil began to do things with figures well above the \$200 mark. We reached for the smelling salts.

It was the same story everywhere we tried. Always above \$200. We wore off the neck of the smelling salts bottle.

Then one day Ben, my brother, had an idea and hauled me off to a junkyard, where we climbed over debris until we

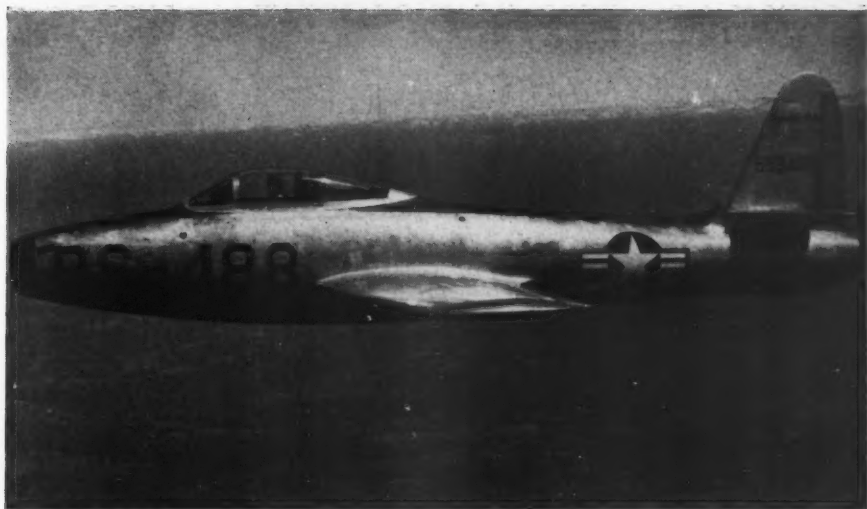
found a battered old bathtub. A few minutes dickering with the proprietor made us the relic's new owners at a price of \$7.50.

Around the bathtub we built our own darkroom. As carpenters, both of us were as dextrous as colts on ice skates. Still, though hitting a nail on the head more than once out of two tries was a feat, we had the darkroom built in four hours. Additional costs ran to \$2.95 for rubber hose, \$3.05 for plumbing fixtures, \$11.00 for war surplus enamel trays. Lumber and nails came to \$8.40, and the junkyard dealer nicked us another five spot for a cabinet that had once graced a cigar store. The cabinet provided ample storage space for chemicals and paper. Grand Total: \$37.90.

In looks, our darkroom isn't likely to cop many prizes for beauty. But it works perfectly and *performance* is what counts.



SID at work in the \$37.90 darkroom. The bathtub drains off into a sink trap at the right. No beauty spot, perhaps, but the darkroom works perfectly and took only a few hours of unskilled labor to construct.



THE THUNDERJET (above) and the Piper Cub Seaplane (below) are typical bathtub darkroom shots turned out by the Ross Brothers, two ex-GI's who balked at spending over \$200 for a fancy cubbyhole in which to soup their negatives.





21 PELICANS
BILL FICKLIN

AXEL'S ANGLES

A monthly discussion of pictures by **AXEL BAHNSEN, A.P.S.A., F.R.P.S.**

Pelicans: "Accidents like this always happen to the right people." It was not necessary, in printing this picture, to darken in the corners of "Pelicans" to the extent that it becomes quite obvious. This spoils the effect and creates a slight doubt in the mind of the observer as to whether or not the picture is authentic. Many a good picture is lost to the photographer because his subject material, lighting, etc. won't wait for elaborate preparations. When taking pictures out of doors

estimate the exposure, then check your meter to see how nearly correct you were; constant practice in this will eventually lead to the retirement of the exposure meter except for unusual situations heretofore not encountered.

Nude With A New Twist: You don't have to live in ivory towers of intellectual pursuits in order to create abstraction in photography. All you need is an analytical curiosity, a mind responsive to visual

(Continued on page 132)

THE NEW *Pacemaker ***GRAPHICS** HAVE EVERYTHING!



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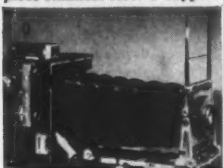
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PHOTO DATA

CLIP SHEET FOR PERMANENT REFERENCE

HANDY DEVELOPER FORMULAS

by Ralph Haburton

The following formulas include two paper developers and six film developers. One of the paper developers is best suited to warm tones, the other to cold blue-black tones. Each film developer is characteristic of a type and is widely different in make-up and results. There are many similar formulas of each of these types available.

With one exception, film developers containing carbonate have been avoided because of possible blistering when handling this chemical. In the case of the process developer, the carbonate is used in preference to the less desirable caustic soda (which is dangerous to use) or paraformaldehyde (which has a short life).

While these formulas are listed by manufacturers' designations, liberties have been taken in order to simplify preparation, and the formulas may therefore vary slightly from other published versions. For the same reason, metric and avoirdupois quantities are not exact equivalents when "rounding off" simplifies weighing and still has no undesirable effect on results.

FINE-GRAIN FILM DEVELOPER Kodak D-25

Water (125° F).....	96 ounces	750.0 cc
Metol	1 ounce	7.5 grams
Sodium Sulfite (desiccated).....	13¼ ounces	100.0 grams
Sodium Bisulfite	2 ounces	15.0 grams
Cold water to make	1 gallon	1.0 liter

Use full strength. Average developing time is 18 minutes at 77° F. The temperature for the rinse, fixing bath and wash should be the customary 65° F. This formula with the sodium bisulfite omitted is known as D-23, and is similar in action to the D-76 borax developer. The average developing time without the sodium bisulfite is 16 to 18 minutes at 68° F.

BORAX FILM DEVELOPER Kodak D-76

Water (125° F).....	96 ounces	750.0 cc
Metol	116 grains	2.0 grams
Sodium Sulfite (desiccated).....	13¼ ounces	100.0 grams
Hydroquinone	290 grains	5.0 grams
Borax	116 grains	2.0 grams
Cold water to make	1 gallon	1.0 liter

Use full strength at 68° F, developing for 14 to 20 minutes. This developer gives maximum shadow detail where low contrast, fine grain, is desired.

METABORATE PROFESSIONAL FILM DEVELOPER Kodak DK-50

Water (125° F).....	64 ounces	500.0 cc
Metol	145 grains	2.5 grams
Sodium Sulfite.....	4 ounces	30.0 grams
Hydroquinone	145 grains	2.5 grams
Kodalk (or Sodium Metaborate).....	1 oz., 145 gr.	10.0 grams
Potassium Bromide	29 grains	0.5 grams
Cold water to make	1 gallon	1.0 liter

Develop in a tank about 8 minutes at 68° F. This developer can be diluted 1:1 with water for tank development. Average time for portrait negatives is nine minutes with the diluted developer.

TROPICAL DEVELOPER Kodak DK-15

Water (125° F).....	24 ounces	750.0 cc
Metol	82 grains	5.7 grams
Sodium Sulfite (desiccated).....	3 ounces	90.0 grams
Kodalk	¾ ounce	22.5 grams
Potassium Bromide	27 grains	1.9 grams
*Sodium Sulfate (desiccated).....	1½ ounces	45.0 grams
Cold water to make	32 ounces	1.0 liter

*or Sodium Sulfate (crystals)..... 3½ ounces 105.0 grams
Use full strength. Develop two to three minutes at 90°

F, then rinse in:

Water	32 ounces	1.0 liter
Chrome Alum	1 ounce	30.0 grams
*Sodium Sulfate (desiccated).....	2 ounces	60.0 grams

*or Sodium Sulfate (crystals)..... 4½ ounces 135.0 grams

Formula D-25 can also be used at 90° F, developing about six minutes. The same SB-4 hardening bath should be used before fixing.

PROCESS FILM DEVELOPER Ansco 81

Water (125° F).....	96 ounces	750.0 cc
Hydroquinone	4½ ounces	35.0 grams
Sodium Sulfite (desiccated).....	7¼ ounces	55.0 grams
Sodium Carbonate (monohydrated).....	10½ ounces	80.0 grams
Citric Acid.....	¾ ounce	5.5 grams
Potassium Bromide	1 oz., 145 gr.	10.0 grams
Cold water to make	1 gallon	1.0 liter

Use full strength. Average developing time for process films is three minutes at 68° F.

PHOTO DATA

CLIP SHEET FOR PERMANENT REFERENCE

MINICAM
PHOTOGRAPHY

TWO-BATH QUICK-WORKING DEVELOPER

First Solution:

Water (125° F).....	96 ounces	750.0 cc
Metol	290 grains	5.0 grams
Sodium Sulfite (anhydrous).....	4 ounces	30.0 grams
Hydroquinone	1 ounce	7.5 grams
Potassium Bromide	60 grains	1.0 gram
Cold water to make.....	1 gallon	1.0 liter

Second Solution:

Water (125° F).....	96 ounces	750.0 cc
Sodium Carbonate (desiccated)....	12 ounces	90.0 grams
Water to make.....	1 gallon	1.0 liter

Agitate continuously for one minute in the first solution, then for one minute in the second solution. These times can be increased to 1½ minutes, each, for known under-exposure.

WARM TONE PAPER DEVELOPER

Defender 55D

Stock Solution

Water (125° F).....	16 ounces	500.0 cc
Metol	36 grains	2.5 grams
Sodium Sulfite (desiccated).....	1¼ ounces	37.5 grams
Hydroquinone	145 grains	10.0 grams
Sodium Carbonate (desiccated)....	1¼ ounces	37.5 grams
*Potassium Bromide	60 grains	4.0 grams
Cold water to make.....	32 ounces	1.0 liter

* Potassium bromide may be increased up to four times the stated quantity.

Develop for about 1½ to 2 minutes at 70° F with one part stock solution diluted with two parts of water. Warmer tones are obtained with increased bromide or decreased development.

The desiccated carbonate may be replaced by:

Sodium Carbonate (monohydrated) 1½ ounces 45.0 grams

UNIVERSAL PAPER DEVELOPER

Anso 125

Stock Solution

Water (125° F).....	16 ounces	500.0 cc
Metol	45 grains	3.0 grams
Sodium Sulfite (desiccated).....	1½ ounces	45.0 grams
Hydroquinone	175 grains	12.0 grams
Sodium Carbonate (monohydrated) 2¼ ounces		65.0 grams
Potassium Bromide	30 grains	2.0 grams
Cold water to make.....	32 ounces	1.0 liter

For paper development, dilute 1 part stock solution with two parts water. Develop 1 to 2 minutes at 70° F. This formula gives colder tones than the first formula.

This formula will not be altered appreciably if sodium carbonate (monohydrated) is replaced by:

Sodium Carbonate (desiccated).... 2 ounces 60.0 grams

INSTRUCTIONS FOR USING HIGH-SPEED FLASH WITH SPEED AND CROWN GRAPHIC CAMERAS AND GRAPHEX AND SUPERMATIC SHUTTERS

Many Speed and Crown Graphic owners have asked for information regarding the use of high-speed flash units with their equipment.

The high-speed flash units which are becoming widely available are divided into two principal types. One group employs a Thyatron or similar tube in the triggering circuit. The second group has a built-in relay or solenoid for closing the circuit between the condensers and the tube.

The first type can be used with the "O" or "X" setting of the fully synchronized shutters. It can also be used directly with the Supermatic (X) and Graphex (X) shutters. No adjustment to the shutter or to the unit is necessary. However, in the case of the Flash Supermatic shutter, **DO NOT** pull down on the synchronizer cocking lever. To do so, will cause a delay in the shutter and pre-

vent proper synchronization by firing the lamp prematurely.

The second group of lamps with the built-in relay requires the adjustment of the camera shutter to provide for a delay in the shutter opening to permit the relay time to close. It is usually best to set the built-in synchronization to the "M" or millisecond position. The relay within the flash unit can then be adjusted to the shutter delay. It can also be adjusted to synchronize with the solenoid with which the Graphex (X) and Supermatic (X) shutter is fitted for normal synchronization with standard flash lamps.

To prevent possible damage to the shutter or flash unit, and to insure correct synchronization, any problems not covered by the instructions accompanying the flash unit should be taken up directly with the manufacturer of the unit.

NEWS ABOUT NEW PRODUCTS

ABC Photo Lab Outfit

A one-package unit which provides the amateur with everything necessary for developing and printing his film has been marketed by Eastman Kodak Company.

It will give the inexperienced camera fan the right start with simple photographic essentials which include: a Model B Brownie Darkroom Lamp; 3-3/4 x 5 1/2-inch trays; 3 packets Universal M-Q Developer; 1 quart-size package



Acid Fixing Powder with Hardener; 1—4 ounce tumbler graduate; 1 stirring rod; 1 Darkroom Thermometer; 1 Kodak Mask Chart (in Metal Printing Box); 24 sheets 3 x 5 1/2-inch Velox Paper, F No. 2; 2 Junior Film Clips; a Metal Printing Box complete with socket, switch and cord for simple contact printing; and an illustrated step-by-step manual of instructions.

When not in use the Metal Box serves as a packing unit in which all the equipment can be kept. This kit is available at your local photo supply store and retails at \$6.50 plus tax.

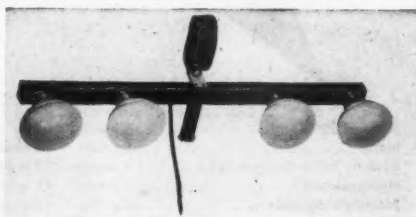
Slides and Filmstrips

Fairyland Films, 105 Nassau Street, New York 7, N. Y., have announced their first 35mm slide and filmstrip release for school and home use. There are six editions available of titled nursery rhymes in cartoon form.

Four stories on one of the films include: "Humpty Dumpty," "Jack and Jill," "Sing a Song of Sixpence," and "The Old Woman Who Lived in a Shoe." These are all in color. For further information regarding these offerings address your inquiry to the above address.

Camera Light

A new movie camera accessory that makes it possible for an amateur to follow action and still get sufficient light on the subject has been announced by H. T. Lorenz Co., 3654 West Lawrence Avenue, Chicago, Illinois.



The accessory, known as the "Powelite," provides a mounting plate for either 8 or 16mm cameras, as well as still cameras, and four reflector photofloods. It can be mounted on a tripod or hand held. Available at dealers or from the manufacturer direct.

Dawo Bellows

One of the scarcest items in the photographic market has been replacement bellows. The recent announcement of the Dawo Company, 1015 Utica Street, Toledo 2, Ohio, to the effect that they are now able to furnish any size, for any type camera, to order, is a welcome relief. This company invites dealers inquiries and is prepared to stock standard sizes for dealers and repair shops. All bellows are guaranteed by the manufacturer. Bellows can also be replaced in any camera as well as be made to order.

Novelty Item

Keepsake, a new novelty item which permanently preserves your favorite memento is being featured by the Plastigraph Corp., at leading photographic and department stores.

Guaranteed to last a lifetime, the Keepsake process seals a photograph in a crystal-clear lens which is mounted on an unbreakable, prismatic Plexiglass frame. Yellowing and fading are prevented. The picture is slightly magnified and gives an interesting three-dimensional effect.



Any precious memento such as a baby's bracelet, lock of hair, or locket can also be kept intact by the Keepsake method.

Available in rich colors in four styles, including book ends and paper weight, a Keepsake makes a perfect gift item.

For further information, write to Plastigraph Corp., 475 Fifth Avenue, New York, N. Y.

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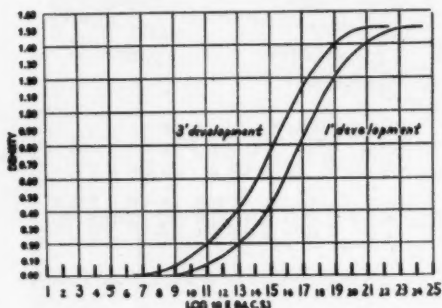
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Haloid Portraya

A new projection paper for fine portraiture and salon prints has been announced by The Haloid Company, Rochester, New York. The chief characteristics of this new chlorobromide enlarging paper are its fine portrait scale and its warm, contact quality tone. Susceptible of selenium and gold toning to a rich warm brown, it is likewise adaptable to oil coloring and has high resistance to abrasion during processing.

The processing characteristics for this paper are such that, to provide desired tone and contrast, control may be readily exercised, within



limits, by means of modifying standard development and exposure. Tests show that Portraya can be developed from one to four minutes with

equally good results. The sensitometric data above shows the latitude obtained in the exposure and development test. Extremes of development from one minute to three minutes were asked. In each case the contrast, as shown by the curves, reveals no change.

Portraya is currently available in grade GG (white eggshell lustre) and also grade XX (antique textured ivory). Additional surfaces are to be announced later. It is packaged in two dozen, gross, and 500-sheet packages, in all popular sizes.

Slide Binder

A slide binder designed for one-handed operation is being offered by Arel Inc., 4916 Shaw Blvd., St. Louis 1, Mo. Known as the PM Slide Binder it will accommodate 2x2, 2 1/4x2 1/4, and 3 1/4x4 1/4-inch slides as well as the 35mm and Bantam sizes. Finished in black crackle with chrome trimming it is priced at \$5.95.

Titles for the Splicing

The movie addict can now purchase ready-made titles and sub-titles to add to the interest of his films. Known as Tell's Titles, there are 25 different items that are packed in individual boxes with a print of the actual title shown on the face of each. This eliminates the necessity of opening each box to see the subject that it contains and assures the purchase of an unmarred film strip. The cost is 25c per title and Tell's Photo Supply Co., 1245 Broadway, New York, N. Y., are the instigators.



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MODERN

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IN DESIGN: Skillful engineering and competent craftsmanship have combined to make a highly accurate and durable instrument. It incorporates increased low light sensitivity, an improved micro-ammeter, a longer reading scale, a high speed, steady-indicating needle, and a range of measurement from 2 to 30,000 foot candles. Streamlined for one-hand operation, the meter is smartly finished in black and chrome with a full view face of plexiglas.

IN OPERATION: The Norwood Director eliminates problems of exposure determination — no need for indecision, guesswork, compromise, or fussy meter techniques — "just read your exposure and shoot with confidence. While the computer dial is professionally complete in order to cover the entire range of exposure requirements, it is the simplest to use — just a finger-tip setting — and the easiest to read of any meter. And don't forget that the rotating Photosphere head makes possible readings from the most convenient angle.

IN UTILITY: The new Director is a universal meter — you can use it equally well for both still and cine work. For movie making, frames per second and equivalent shutter speeds are clearly indicated. Then, for the professional, there are two inexpensive attachments — the PHOTOGRID for Brightness Range Control, and the PHOTODISK for Lighting Contrast Control. The complete Norwood Director meets every photographic requirement — it measures EXPOSURE, CONTRAST, and BRIGHTNESS.

IN PRICE: The Norwood Director formerly sold at seventy-five dollars and was considered excellent value by those who bought and used it. At the new low price, no camera owner can afford to be without one. Place your order today.

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Photographic Analyzer

An instrument designed to aid both professional and amateur photographers to make prints and enlargements, and especially to produce color photographs by any process has been announced by the Weston Electrical Instrument Corporation, Newark, New Jersey. It is called the Weston Photographic Analyzer and consists of a densitometer, an illumination meter, and a calculator.

Photographers can accurately appraise the value of negatives as to density and contrast range through its use. Contrast ranges of



printing papers, matching of correct grade of paper to negative, printing exposures and controls, and many other processing operations to

produce technically correct pictures in either black-and-white or color, can be performed.

The many variations in its use are too lengthy to permit publication in an announcement of this kind and it is suggested that the potential user either contact his local dealer for complete information, including price, or address an inquiry to the manufacturer at the above address.

8mm Picture Master

Several new features have been embodied in Bell & Howell's new 8mm Picture Master projector. The base-up mounting of the projection lamp is one. With this type of mounting, it is claimed, the blackening substance that is formed during the operation of a tungsten lamp is carried upward and out of the beam before being deposited, thus the side walls of the lamp envelope remain clear for the life of the lamp, and full illumination always reaches the screen. The base of the lamp also remains cooler than would otherwise be the case.

Another feature is single-frame projection of several times the brilliance obtainable with any other 8 or 16mm unit. This is achieved by the use of a new heat filter that protects the film, yet permits the single frames to be viewed with more clarity.

The projector comes equipped with a 750-watt base-up lamp, but a 500-watt lamp can be used if desired. Bell & Howell's exclusive Safe-lock sprockets are also a part of the new machine. A centralized control panel puts the operation of the unit within reach and a newly-

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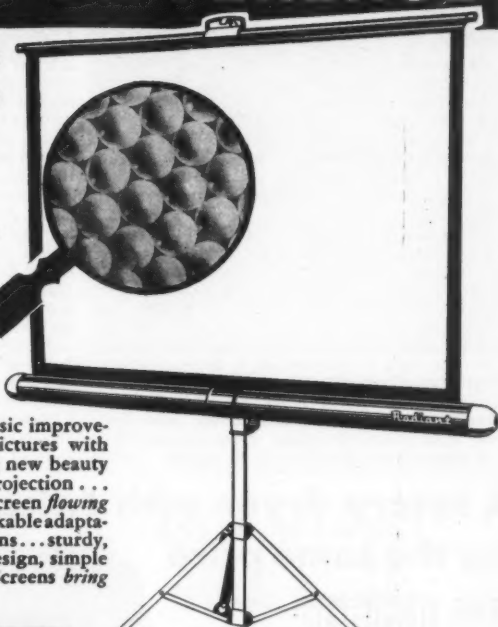
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Everflash II

To provide greater illumination and to make synchronized side lighting possible, the Everflash Corporation have announced a new Speed-light unit known as the Everflash II. It is a ten pound portable outfit, with a self-contained rechargeable 6-volt battery, and comes equipped with two 7-inch aplanatic polished reflectors, two flashtubes, two guns, two cables, and a charger.

The main flash gun has a five foot cable and the extension flash gun a fifteen foot cable. Two sockets are provided in the power pack for these cables, as are outlets for synchro-shutter, solenoid operation, and focus spot.

Everflash II can be synched to any and all type shutters, except those of the focal plane type. The unit is enclosed in a brown leather carrying case and all controls are easily accessible when the outfit is in use. For further information and prices write to the manufacturer direct, the Everflash Corporation, 137 N. LaBrea Ave., Hollywood 36, Calif.

Diffusing Attachment

Pictrol is the name of a new lens attachment which enables one to achieve results formerly obtained only through the use of diffuse image lenses. Used in conjunction with any lens, Pictrol converts it into a variable soft focus lens which gives any degree of diffusion from razor-sharp to misty-soft.

Attached to an enlarger, Pictrol tends to eliminate retouching as well as spotting. It reduces grain, softens harsh contrasts and imparts to the print a quality of pictorial softness. Of primary interest is the fact that diffusion may be accurately controlled by means of a calibrated ring. The user may achieve any degree of soft focus simply by turning the ring, and having achieved his desired effect once, he may produce identical reprints.

Pictrol is manufactured by Berlant Associates, Photovisual Engineers, 9215 Venice Boulevard, Los Angeles 34, California. Made of plastic and aluminum, Pictrol retails for \$4.95, federal excise tax included.



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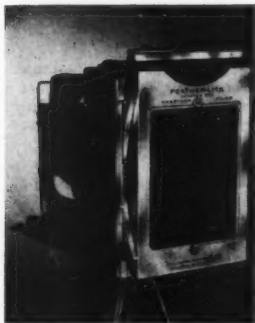
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Camera Back

Cameras of the Recomar, Voigtlander, and Ikon type can be changed to the standard graphic type using double cut film holders by the addition of the Feather Lite Adapter. This adapter eliminates the foreign type single cut film holder and the sliding ground glass back that has to be attached and detached.



The Feather Lite is made from aluminum in three sizes: 9x12cm for use with 3¼ x 4¼ film; 9 x 12cm for use with 2¼ x 3¼ film; and 6.5 x 9cm for use with 2¼ x 3¼ film. All sizes are priced at \$14.95, including Federal Excise Tax, and are now at your dealers.

They are manufactured by the Hollywood Photo Manufacturing Co., 1680 N. Vine St., Hollywood, Calif., and are distributed by American Photo Industries Co., Inc., New York; Farnan & Seeman, Inc., Los Angeles; Intercontinental Marketing Corp., New York and Chicago; and Lenco Photo Sales, Detroit.

Inexpensive 35mm Camera

It is claimed that the plastic used in molding the case of the Winpro Camera is unbreakable. It is finished in a soft grey shade and is in two parts. These parts are held together by steel clips which slide in grooves in the front and back halves of the case. A nylon handstrap is fastened to these clips. The two halves of the case are light-trapped by a deep tongue and groove which extends around the case.



The lens is of the fixed-focus doublet type of 40mm focal length. A positive shutter is fitted that requires no setting for diaphragm or speed. A stop attachment for time exposures is supplied. The frame counter is



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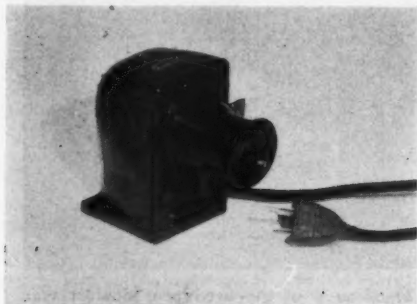
217 Park Street, New Haven 11, Conn.

sprocket driven by the film and shows the frame number in a window only after the full frame has been wound on the take-up spool. The camera uses 35mm film, of course.

The price of this camera has been established at \$10.95, Federal Excise Tax included. Further information can be had from the manufacturer, Webster Industries, Inc., P.O. Box 370, Rochester, New York.

Still Projector for Micro-16 Film

The Kimac Company, Old Greenwich, Connecticut, announces a still projector for 16mm



film such as obtained with the Micro-16 camera. Listing at \$8.95, the Kimac 16mm still projector may also be used as a viewer-editor.

Craig Announces Reduced Prices

Craig Manufacturing Company have announced a substantial reduction in the price of the Thalhammer B/L Tripod, complete with head. This well-known tripod which formerly sold for \$39.16, including tax, has been reduced to \$24.50, including tax. According to the manufacturer, this substantial reduction of \$14.66 per tripod has been put into effect because of an overly-large inventory and the insistent demand from consumers and dealers for a high quality tripod at a low price.

The company states that the Thalhammer B/L tripods being offered at the new price of \$24.50 are of the same high quality in materials and workmanship which has made them so popular with photographers. Further information regarding Thalhammer B/L Tripods may be obtained from local photographic dealers or by writing Craig Manufacturing Company, 1823 South Hope Street, Los Angeles 15, Calif.

New Catalog

Marking the end of a six-year gap, the Central Camera Co., formerly annual publishers of Central's Photographic Almanac, is now releasing its first catalog since 1941.

A condensed version of the former Almanacs, this new catalog contains 48 pages of currently available photographic merchandise.

Copies are available free on request from the Central Camera Co., 230 S. Wabash Ave., Chicago 4, Illinois.

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#201	2 1/4 x 3 1/2 Graphic & Acces. \$34.50		
#204-W	Reflex Cameras \$19.95		
#204-L	Movie & Mini Cameras \$19.95		
#203-W	Reflex Cameras \$16.95		
#203-L	Movie & Mini Cameras \$16.95		

J. B. PERRIN & COMPANY

5606 SUNSET BLVD., HOLLYWOOD 28, CALIFORNIA

New Edwal Developer



Edwal is entering the low-priced field with a new developer that is packaged in an eye-catching gold foil envelope. Edwal 1-2-3 Developer, as the product is called, is for both film and paper use.

Each packet sells for 15c and, as the name suggests, makes one quart of developer for contact prints; 2 quarts of developer for enlarging paper; or 3 quarts of developer for film. The developer contains Edwal Orthazite for rich blacks and longer life and will process more than eight rolls of film since it can be stored for later use. Available at dealers or from Edwal direct.

Greetex Masks

Greetex Masks, a method of making personal greeting cards from your own negatives, now has included a new series of halftone masks. Personal greeting cards are completed in a single exposure from Greetex Masks and can be used for enlargements, as well as printing.

A new booklet "The Greetex Way" contains many helpful hints on making attractive greeting cards and can be obtained by

simply writing to the manufacturer of Greetex Masks, Frederick D. Fisher, 207 East 84th Street, New York 28, N. Y.



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2 1/4 x 2 1/4 Rolleicord F3.5 Triotar, case	150.00



2 1/4 x 3 1/4 Graphic Miniature F4.5 coated Ektar, Flash Supramatic, Kalart R.F., Heiland Tripper	200.00
4x5 Tele Graflex B. & L. Tessar F.P.A.	125.00
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Fits inside of the Rolleiflex Bayonet Sun Shade as well as all types of series 5 filters and sun shades—Eastman or otherwise. Fits all bayonet mount Rolleiflex and Rolleicord, without lock ring.....\$3.00 with locking ring.....3.45 with series 5 sun shade. 4.25 including tax

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12" F4.5 B. & L. Tessar, Betax	200.00
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Wabash AC Speedlamp	120.00
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GOOD PICTURES

don't grow on trees, as you have probably found out. The way to good picture taking is strewn with novels that try to tell you how to do it overnight—but the only sure way is to apply what you have learned from a good book on the subject that you are interested in.

The books listed below are of this kind—they don't let you down if you learn what they have to say. Take for instance "The Photographic Process" by Mack and Martin, it was written as a textbook for the course in photography at the University of Wisconsin. If you read it, study it, and perform the experiments and execute the problems that it contains; you will know photography and what makes it click a lot better than you do now. You are well on your way to becoming a Darkroom Scientist.

If you do not care for darkroom wizardry, perhaps you DO like color work—then the best book on the subject is Fred Bond's "Kodachrome and Kodacolor from All Angles". Fred is also the author of "Westward How", of which there is no whither. For the beginner, as well as the old timer, the best seller is still "This Is Photography" by Miller and Brummitt, of the famous Eastman Family.

Why not prepare yourself for those long, cozy winter evenings to come by getting a few books on your shelf now? It will pay dividends in a short time.

1947 Photo Almanac.....	\$1.50
Westward How.....	6.95
Graphic Graflex Photography.....	4.00
Correct Exposure in Photography.....	1.50
Kodachrome & Kodacolor From All Angles	6.50
Photographic Process.....	5.00
Image Management.....	3.50
This Is Photography.....	2.00
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3 POINT AGITATION

The trays are made of acid resistant, chip proof, bakelite and come in three sizes: 5x7, 8x10, and 11x14, in either black or white color. For further details see your dealer or write to the manufacturer direct.

Price Reduction

Brownie Manufacturing Company announces that they have reduced the price of the Measure-Rite Range Finder, calibrated in the metric system, to \$8.95, which is the same price as their standard Range Finder calibrated in feet.

They also announce that Craig Movie Supply Company of 1053 South Olive Street, Los Angeles, Calif., has been appointed distributor of the Measure-Rite Range Finder for the West coast.

Change of Ownership

The Ray Campbell & Company of Los Angeles has acquired the entire "Opticote" lens coating equipment from Vard, Inc., of Pasadena. Mr. O. K. Harter, formerly in charge of the Vard lens coating department will head up the Ray Campbell set-up. The same dependable service and high quality workmanship given the Vard customers will be maintained.

The new equipment enables the Ray Campbell Company to triple their production.

Six New Chemical Products

The Mallinckrodt Chemical Works (St. Louis and New York) manufacturers of Medicinal, Laboratory and Photographic Chemicals, since 1867, have entered the field of Prepared Developers and Fixers with six new products.

Prepared for the photographic and photochemical trade, five developers, Pictone, Softone, Ultratone, Lithotone and Contratone, plus Jifix, a rapid acid-hardening fixing bath, are now ready for delivery by leading dealers. In this introductory stage, these products are available in units to make one-gallon and five-gallons of solution with the exception of Softone and Ultratone which are available in only one-gallon unit sizes. Additional Developers and Fixers are contemplated within the near future and it is also proposed to include a greater span of container sizes.

In meeting the demand for prepared Developers and Fixers the excellence of the individual component chemical was maintained in the finished product compound to produce Developers and Fixers of high quality, purity and dependability. Additions to the existing

list of new products will be announced when available.

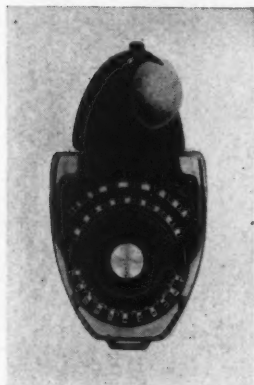
We understand that Mallinckrodt offers a factual data sheet covering in detail the six new products, and that they will be happy to send a copy to you on request.

New Model Norwood Director

The American Bolex Company, Inc., 521 Fifth Avenue, New York 17, N. Y., exclusive distributors for the Norwood Director Exposure Meter, announce the availability of the new Norwood Model B.

The new design incorporates an improved microammeter which provides a range of 2 to 30,000 foot-candles; a longer and easier reading scale; and a high-speed, steady needle. The cover of the meter is Plexiglass and the calculator is mounted on it in line with the needle so that readings and computations may be performed without looking in a half-dozen places. The dial is so placed that all calculations may be made with the hand that is holding the meter.

A.S.A. indices for film with values from 0.1 to 1000 are available. The film index is pre-set for the film in use and locked into position.



Shutter speeds from 1/1200-second to 120 seconds are listed on the shutter speed dial. This dial also is calibrated for motion picture camera speeds of from 8 to 64 frames per second. These are shown in red. All diaphragm stops from F:1.4 to F:45, in both American and European systems, are shown.

The meter features the patented Photosphere light collector which gathers and integrates the incident light falling on the camera side of the subject. This head may be rotated to any desired angle as an aid to the user in obtaining a correct reading. By using the incident light method, light or dark backgrounds have no effect upon the reading of the meter and hence cause no errors in the result.

The Director can be used for either daylight or artificial light readings, or with a combination of both. A Photogrid and Photodisk are also available as accessories and are used by both professional and amateur when it is desired to measure brightness range or lighting contrast. Either can be interchanged with the Photosphere in a few seconds.

The price of the Model B Norwood Director Exposure Meter will be the same as the former model—\$33.72, including Federal Excise Tax. If not available at your dealers write to American Bolex direct for any additional information that you desire.

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The tripods have heavy wood supports 32
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28 inches long. The rods are pointed on the



ends making them particularly suited for out-
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the legs in the desired position.

A special head is also held in place by a
locking device. It is only necessary to discard
this head and replace it with one made at a
machine shop which has a threaded screw
(1/4-20) to fit the camera, as shown in the
photo. The tripod is then ready for photo-
graphic service.—H. Leeper.

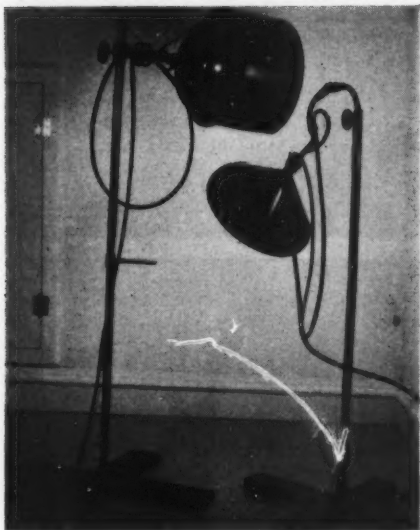
Newspapers for Drying

In hard water districts, a stack of news-
papers is better than a blotter book for drying.
As the hard water dries, it fills the blotters
with lime which destroys the blotting action.
Newspapers, on the other hand, can be used
once or twice and discarded. It is also possible
to have a much thicker absorbing layer be-
tween prints. With ordinary prints, wax paper
is used on the face.

Ferrotypes tins need merely to be placed between the layers. In winter, when the air is very dry, ferrotyped prints dry near the edges if not covered and when they fall off they wrinkle still more. When they are very dry, the gelatine surface sometimes cracks. However, if they are left between newspapers they stay flat until they are removed. The thick layer of newspapers makes them dry evenly all over.—*L. T. Bruhnke.*

Floodlights

The two floodlights illustrated can be raised or lowered or set at any angle desired. The reflector of the larger one was made from a ten-cent tin wash basin with a tin collar soldered around the edge. The smaller reflector was made of tin cut to form a cone, or funnel, and soldered.



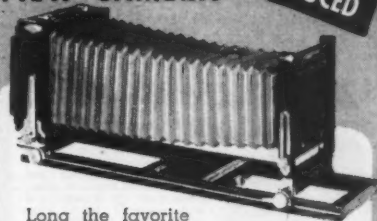
The standards are made from scrap pipe and valve handles. The larger unit has a sliding pipe tee which is held in place by a threaded valve handle which is screwed into a tapped hole in the back of the tee. A reducer is inserted in the front part of the tee and a smaller section of pipe is used for the reflector support. Two pieces of scrap lumber are halved to form the base and a pipe flange is screwed to the center of it.—*Wm. D. O'Brien.*

Spotting Glossy Prints

Many amateurs shy away from glossy paper for the simple reason that it is difficult to spot. However, the surface may be made to accept pencil quite readily if it is first prepared like a negative prior to retouching. Use retouching fluid or dope and apply a small amount to the print and rub it into the surface thoroughly with a tuft of cotton. All spotting is done when the print is dry and before ferrotyping.—*John Stockwell.*

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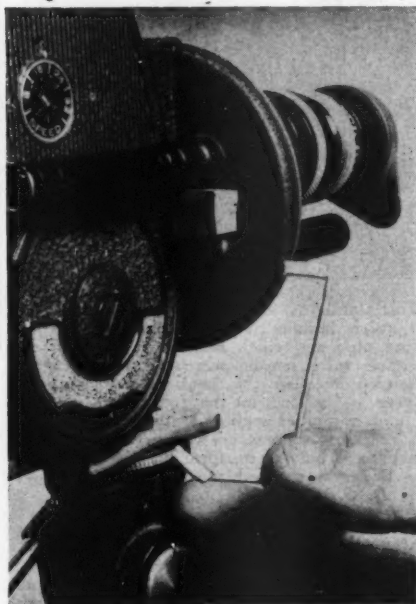
Durable and easily read photographic charts and tables may be quickly made with a typewriter. Type the information you want on a sheet of thin, white paper which has a piece of carbon paper behind it, the inked side facing the sheet. This will result in an impression on both sides of the paper. Use this as a negative and make a contact print on double weight glossy paper in the contrast grade. The glossy paper is easy to keep clean and is resistant to folding.—John Stockwell.

Use Pipe Cleaners to Dust Negatives

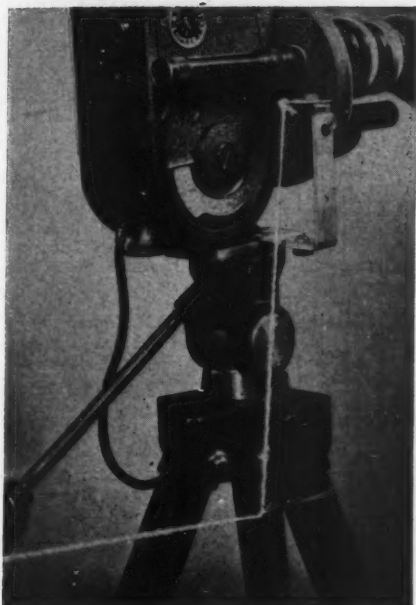
When film negatives become dusty a pipe cleaner can be effectively used to clean them off. The cleaner, if lightly drawn across the surface of the negative, will pick up the dust without leaving any scratches.—Una L. McArthur.

Remote Control for Movie Camera

One of the simplest "self-timing" devices that can be used with the Filmo 8mm Turret camera is a small block, cut from a rubber eraser, that is inserted between the shutter release and the bottom of the critical focusing tube, as shown in the photo below. Another



method of achieving the same result is also shown. A short length of stiff wire can be shaped to hook around the release button and the bottom of the tripod. Tape is applied to both ends to prevent the wire from slipping



off the release and tripod base and to prevent scratching of the surfaces. This device will also work on other types of cameras.

The second illustration shows a shutter release that can be controlled remotely by a piece of cord. The framework is formed from two pieces of metal and a hinge. A flat piece of metal is fitted between the camera base and the tripod head, being held in place by the tripod screw. A metal angle is then bolted to this flat piece. It should be long enough to extend slightly higher than the release button. A section of small hinge is then bolted to this angle so that it fits over the release. A cord is fastened to the end of the hinge and run down through a wire loop on the tripod leg and thence to the operator in his remote position.—George Carlson.

A Trick for Bantam Adapter Users

Recently the Bantam adapter that I use in an Argoflex slipped during loading and the Kodachromes were returned from processing unmounted. The film was not mounted due to the perforations being within the edge of the picture area.

The film was of excellent quality and contained some scenes that would be difficult to replace. Not wanting to lose this film I hit upon the idea of mounting the Bantam size film in standard 35mm cardboard mounts. The edges of the film were trimmed to fit the 35mm mounts and I even had the chance to do a slight bit of cropping to improve composition. All eight exposures were saved and made into good slides.

Save your slides by this method if you ever have the same bad luck.—John H. Clem.



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A NEW 1947-1948 Film Rental Catalog listing all silent 8mm and 16mm subjects available from National Cinema Service, 71 Dey Street, New York 7, N. Y., will be ready for distribution about the time that you read this notice. It will be the largest issued in the 10-year history of the company.

There will be new features and short subjects of every type, along with National's famous collection of "Old Time Movies." Some well-known stars included in the large selection are: Mary Pickford, Marie Dressler, Charlie Chaplin, Lionel Barrymore, Lon Chaney, Doug Fairbanks, Irene Rich, and Wallace Beery, as well as a host of others.

Every subject, new or old, is available for rent at National and the new catalog is free to all requesting a copy. Specify which size film you use in your projector—8 or 16mm—and the appropriate catalog will be sent by return mail. For out-of-town renters National ships direct to the customer throughout the United States. Also available is a new Sound Rental Catalog for users of 16mm sound equipment. It is also free.

PEOPLE are funny, especially when they are young, in love, and stagestruck. Add a dash of hunger, mix well in one apartment, strain through the narrow-mindedness of a self-righteous friend of the family and you will have the plot for **YOUNG AND WILLING**.

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O'Driscoll. As she goes to inform Martha's dad, the boys, headed by Eddie Bracken, madly pack and clear out. One is not in on the move, however, and comes home for a bath while Dad is there. Pandemonium breaks out at this point. Susan Hayward and the late Robert Benchley have a hand in it, also. All-in-all you will find it highly entertaining fare for the 9 reels of the film. Exclusive with Commonwealth Pictures Corp., 729 Seventh Ave., New York 19, N. Y., further information can be obtained from them direct.

MESSRS. Projection of India Pictures are pioneers in the field of substandard cinematography in South India, having their own laboratory and studio facilities. They have produced a number of films on India, its festivals and peoples, temples, and places of historical, geographical, and cultural importance, both in black-and-white and color and are prepared to offer their productions for exclusive United States distribution to any distributor interested in such a deal. They are also willing to handle distribution of 16mm educational, classroom, industrial, and entertainment films produced in the United States, for either the whole of India or a part thereof.

The work that they have done in the educational field has had the full support and backing of the Education Department of the Government of Madras as well as the Government of India. The proprietor of Projection of India Pictures is K. S. Srinivasan, B.Sc., B.L., who is looking after the general and technical supervision of all the production activities of the company, with S. K. Murti, B.A., as General Manager, and R. V. Chari, B.A., Technical Manager and Chief Cameraman. The address of the company is 2/45, Royapettah High Road, Madras 14, S. India.

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There are twelve reels in this series, which are obtainable at all camera shops and film libraries, featuring the following stars and musical selections:

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THE ACADEMY of Motion Picture Arts and Sciences' library was the recent recipient of a gift by Colonel William Selig, film pioneer. Colonel Selig said, "A 1914 projectionist needed



a strong right hand," as he demonstrated the Polyscope projection machine that he invented to Margaret Herrick, executive secretary of the Academy. Also included in the gift was a 1909 Selig motion picture camera, the records of the old Selig Company, press books from films dating back to 1906, and countless "stills" from early day motion pictures. Shades of the old nickelodeons, Airdrome shows, and "Adventures of Kathlyn"—we must be getting old.—Ed.

Thermometer Tip

For best results and accurate readings, the darkroom thermometer should be kept at the level of the developing table or sink.

Warm air rises and if the thermometer is at eye level it may read several degrees higher than the actual temperature at the level of the developing and fixing trays.—Duane Featherstonhaugh.

MOVIE MATHEMATICS

(Continued from page 85)

two F:numbers in question. In the above case we have F:11 and F:8, or $11 \div 8 = 1.375^2 = 1.88$ or 2 approx. When you doubled the shutter speed from 1/15 to 1/30 at F:11 you only allowed half as much light to enter the lens. Therefore, to get correct exposure at the new speed you have to open up your lens sufficiently to allow twice as much light to enter and the above calculation proves the fact that the next larger stop doubles the amount of light that enters the lens, and the next smaller stop (in area) reduces the light by one-half.

Suppose you knew that a herd of antelope was browsing nearby, and as soon as they saw you, they'd hit for the open. You want to catch them in slow motion at 64 frames instead of 16. If the sky were slightly overcast and your meter gave a reading of F:16 at normal speed, what lens stop would be used for slow motion?

Remember again that each time you double your frame speed, you open up your lens another stop. In other words, a scene taken at normal 16 frames per second at F:16 would require an F:11 opening at 32 frames per second, or F:8 at 64 frames.

Indoor Exposure

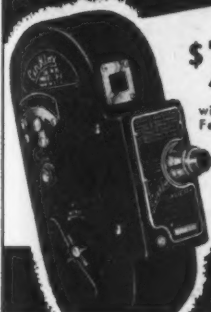
Then there's another law which is helpful in determining proper exposure indoors when varying your photofloods in interior work. Suppose you are using a number 4 photoflood eight feet from your subject at a lens setting of F:8 at normal speed. If you pulled your lamp back to 10 feet or 15 feet, the exposure required would be directly proportional to the square of the distance from the light source. Applying this law we find that the square of $8=64$; of $10=100$; of $15=225$. Therefore, we must open up the diaphragm of the lens to admit 1.6 times more light at 10 feet, and 3.5 times more

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at 15 feet, or to stops F:6.3 and F:4 approx. in this example.

What's In Focus

Depth of field is that distance from the nearest point satisfactorily sharp to the farthest point satisfactorily sharp. For instance, if you are photographing a bull and a cow moose standing, say, 10 feet apart, and you focus on the bull at a large aperture, the cow will be out of focus. If you focus on the cow, the bull will be blurry. However, by closing down the lens to as small a stop as light permits, it is possible to get both in reasonably good focus.

Without referring to special guides, it is possible to determine how great a depth of field you will have at a given lens stop by simply multiplying the hyperfocal distance by the point to be focused upon, and dividing this by the difference between the hyperfocal distance and the same point. This gives the far distance, and our formula will read:

$$\begin{aligned} \text{Far Point} &= \frac{\text{Hyperfocal distance} \times \text{distance focused on} \dots}{\text{distance focused on} \dots} \text{ or } \frac{H \times D}{H - D} \\ \text{Near Point} &= \frac{\text{Hyperfocal distance} \times \text{distance focused on} \dots}{\text{Hyperfocal distance} + \text{distance focused on} \dots} \text{ or } \frac{H \times D}{H + D} \end{aligned}$$

Now, if you remember that the hyperfocal point is the nearest point in focus when you are focused on an object at infinity, it will not be too difficult to understand that the distance from this point to camera is the hyperfocal distance for that particular lens at that stop. If you focus the lens on this hyperfocal distance point, depth of field will extend from one-half this distance to infinity. By subtracting the Near Point from the Far Point in the above formula, you will obtain your Depth of Field.

For those who wish to carry their mathematics a bit further, we suggest turning to the Photo Data Clip Sheet in the September issue—page 90. It contains the most used lens formulae and is adaptable for movie work as well as still photography.—Ed.

TEN COMMANDMENTS OF MOVIE MAKING

1. Think in terms of movies, forgetting still photography. It is futile and wasteful to make color slides with a movie camera.

2. Have a central theme or plot, and try to get a new or fresh approach to the subject.

3. Start your theme or plot with an idea that is thoroughly understood, and make each succeeding scene carry the story just a little bit further along a planned course. Do not let the interest lag even for a moment, and bring the story to a satisfying climax.

4. Avoid static shots unless their presence on the screen can be explained by the action of the plot. For example, a closeup of a flower is meaningless unless one of the persons in the film happens to have come across it during a stroll or while visiting a greenhouse.

5. Do not spread your cine ideas too thin. Better a short movie than a weak theme dragged out for a full reel.

6. Never go over the same ground. If you show a particular kind of subject matter, or develop an idea by means of a movie sequence, complete the sequence then and there. Don't jump around from one idea to another and then back again, or your audience will become bored and confused.

7. Keep your movie ideas neat — every sequence like a package. Present each bit of subject matter or incident, through intelligent photography and editing, so clearly that little is left to the imagination.

8. Surprise your audience once in a while with a little twist in the theme or plot — but avoid hackneyed material or situations. Here is where the personality of a moviemaker shows up in his work.

9. Frame your movies in interesting titles.

10. Edit your movies to show the least interesting shots first, building up the interest-per-foot value until — at the end, your best shots are shown; and keeping in mind at all times that brevity is the soul of wit.

— Leo J. Heffernan.

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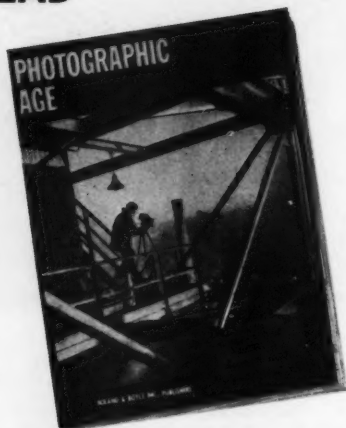
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CAMERA CLUB

NEWS AND IDEAS

Larry Heinh writes us about an angle on judging club exhibits which is proving satisfactory with his club, the newly organized **HYPO HOUNDS** photographic club of the West Side Branch Y.M.C.A., 5 West 63rd St. New York. (Meetings held second and fourth Mondays at the Y at 8 P. M.) Several exhibits have been held, in which the layman awards the prizes. The public seems to be interested mainly in new, novel or strong ideas and not so much on technique excellence. The **HYPO HOUNDS** plan to use this yardstick on all future club exhibits.

From Jack Cannon—**CALIFORNIA C. C. View-Finder**, "Here's an old one—always helpful as long as there's a nickel and a couple of dimes in the kick."

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Quickie idea for program chairman. Ask club members to bring and explain any home-made gadget which has been helpful in the darkroom or in picture making. Appoint a board of judges and let them award a prize for the best submitted.—*Ray Schweigert*

The National Camera Club Newsletter

John C. Bobbitt, 544 Brandon Place, Cliffside Park 11, N. J., has an idea for helping camera clubs and he is going to do something about it. Early this fall the first monthly issue of *The National Camera Club Newsletter* will be published. It will be mimeographed on standard size 8½"x11" paper, stapled at the top. Distribution will be on a nation-wide basis to camera clubs and camera club members only. It will be an economical means of communicating with all other camera clubs and keeping up with their plans, activities, equipment they have to sell or exchange, and a means of giving publicity to club contest winners and other members who have worked hard and faithfully toward recognition for their club.

This newsletter was not planned to make profit, but rather to aid those clubs just being organized, those in search of new activities and developments, and those who want their club to be recognized throughout the nation.

To be placed on a permanent mailing list, each club must pay only \$1.00, which will be the only subscription dues they will ever have to pay in order to receive each monthly issue. This amount will be used to keep up mailing lists. Club entries will be published at the rate of \$2.00 for each full page. Individuals cannot be placed on the low cost permanent mailing list, but may subscribe for private copies at \$1.00 a year.

Clubs will not be required to submit entries or pay fees to receive subsequent issues, but all clubs are kindly asked to cooperate in making this publication a success by submitting entries as frequently as possible. For further information, write direct to Mr. Bobbitt.

Your publisher,
John C. Bobbitt,
544 Brandon Place
Cliffside Park 11, N. J.

The PSA Continental Print Contest is fast becoming a hardy perennial with PSA affiliated clubs. As the 1947-48 season gets under way we just have time to give a recap of last seasons winning clubs. In *Group A*, the FT. DEARBORN CAMERA CLUB (351 points) nosed out last years winner the CALIFORNIA CAMERA CLUB (344). In third place, DETROIT C. C. (336), fourth, BOSTON C. C. (335) and fifth, CLEVELAND PHOTO SOCIETY (314). The winner in *Group B*—CAMERA GUILD OF CLEVELAND (312 points) second, C. C. PROVINCE ENGINEERING SOCIETY (294), third place was all tied up between SIERRA C. C. and SEVEN HILLS C. C. (268) fourth, ROCK ISLAND C. C. (239) and fifth, PHOTO GUILD OF PHILADELPHIA (231).

Thirty color photographers of the SIERRA CLUB of Sacramento shot up some \$700.00 worth of flash bulbs, Ansco Color and Kodachrome, in many sizes, including movies, when they went all out to photograph the California State Fair in color. The Agricultural Society will (1) select an exhibit of slides, (2) prepare a motion picture from the movie scenes, and (3) have color prints made from the larger transparencies. These results with bylines crediting the club will travel continually throughout the state to promote California State Fairs.

Increasing Paper Contrast

Very fine enlarging papers are usually made in a single degree of contrast—normal. Unfortunately, not all negatives are normal and the usual procedure is to alter the developer composition to increase print contrast. In addition to doing the above, contrast may be further slightly increased by slipping a light yellow filter over the enlarging lens and lengthening the print exposure.—John Stockwell.

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MODELS' GUILD

(Continued from page 82)

cost, and the income level of the group. Regular commercial rates run 30 to 50 percent more.

Restrictions

A Guild model does not give a release for pictures made at below minimum scale. If an amateur wants a release (which he should have if he wants to sell the pictures) he will have to make up the difference between what the model was paid and the minimum professional rate.

This brings up the question of the Guild's definition of commercial work. No release is needed, of course, for pictures made for salon or contest work. Neither is a release required if an amateur takes a picture of a Guild model in, let's say, a farmerette costume during his club's studio night and sends it in to a photography magazine for publication as an example of the type of work turned out by members of the Film and Focus Group. He may even receive the usual payment of five dollars or so and still not endanger his amateur status in the eyes of the Guild. If, however, the same amateur takes the same shot of the girl in farmerette costume and sends it in to the *Southern Hills Chicken Raiser* . . . there's a matter of a minimum rate that he'll have to straighten out with the model, no matter what he gets for the shot.

In short, if a picture is used for a contest or in conjunction with a legitimate story about a club or group, no release or professional scale is necessary. On the other hand, if pix are sold for an advertisement or for direct commercial work, the amateur is subject to the same restrictions as other professionals.

Two important rules apply to amateurs who want to hire models. First, the amateur must furnish identification of the proper sort. This is merely to help avoid circumstances which might lead to what the Guild terms "minor unpleasantness."



IT'S ALL in a day's work for Anne Arient. She starts off with a session in the Zalkind Studios where she puts in two hours modeling beach wear. It's exacting work as huge boom spots and heavy broads are moved into position for the camera. The pictures will eventually grace the advertising pages of a national magazine.

NEXT ASSIGNMENT on the list for Anne . . . the makeshift studio of amateur photographer Marvin Albert. He lines up his photographic gear on the chair stands with care, and with equal precision sights and focuses his 35mm camera. Anne likes sessions with amateurs because she can join in the posing and offer suggestions for shots similar to those taken in the large studios. She feels that the standard of amateur work is constantly improving and considers some of the shots of her the equal of many professionally made pictures.



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Kodak Vigilant 620 F8.8 Coated Lens	28.86
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Secondly a model may reject any job she doesn't want to take; whether or not she works for an amateur is up to her entirely. Actually most models do a certain amount of reduced scale posing.

From the Model's Viewpoint

As far as the model is concerned, there is an investment in posing for an amateur. His equipment may verge on the Rube Goldberg and his studio may be in the dining room, but it's a wise model who bears in mind that many of the world's finest photographers are amateurs. Moreover, many of the amateurs of today will be the professional photogs of tomorrow. The fledgling model cashes in on valuable posing experience by working with amateurs, and should the amateur sell pictures of her she is automatically entitled to a standard minimum rate for the job.

So You Want A Model . . .

Let's get down to direct facts. Let's say that you have a few extra bucks in your pocket and having successfully resisted the temptations of the local photo store window, decide you want to try a series of shots with a model. So what do you do? You reach for the phone and you call the Guild. Ten-to-one your next move will be to make one of the most common errors in the business. You won't do like the professional does and specify exactly what you want with regard to height, size, sex, hair, color, etc. No, you'll probably just say you want a model. Then will follow a long conversation in which the Guild representative will try to pry the desired information out of you. It will tax your time and your patience, perhaps, but actually its your own fault. The only way to avoid it is obvious: *Know exactly what you want when you ask for a model!*

So You Get A Model . . .

The model is here! She has taken off her hat, met your kid brother and is ready to step in front of your battery of photofloods. That means that her hair is fixed as you requested, her make up as

you wanted, and her costume exactly what you specified. This is attended to before the appointed hour and now the posing time begins. Right here is where you probably commit the second unpardonable sin. You look at the model and then you look at the lights and then you begin to think. All this while the model's time is clicking away like a taxi meter. If you had taken a tip from the professional boys, you would have had an entire series of shots lined up in your mind, or roughed out on paper — and long before the model arrived.

A Guild model is instructed to come made up and costumed as requested by the photographers so that at the set time she is ready to go to work. Any further changes after that count as modeling time. Models, like musicians, get rest periods that are clocked in as time on the stand. They usually run about ten minutes out of the hour. This leads us smack into the second moral of our story: *Know what you want before the model arrives.*

Classification of Types

Amateur pictorial work is classified by the Guild into six separate groups:
1. Costume; 2. Action (dance etc.);
3. Head; 4. Character; 5. Age Group;
6. Special (hands, legs, figure, etc.).

Almost all posing other than commercial illustrative work fits into these categories. Whether or not there is a Guild in your city, it may help to keep this list in mind when deciding what type of model you want.

Nudes and Cheesecake

When it comes to nudes, semi-nudes, and cheesecake, there's a big dividing line about which books have been written. It's that razor sharp boundary beyond which a nude becomes simply a picture of a naked woman, or a cheesecake becomes almost salacious. The only restraints are good taste, technical ability, and a sincere desire to create beauty.

Although most of the Guild's calls for figure work come from legitimate amateur groups, the picture isn't entirely unmarred. It is unfortunate, but inevitable,

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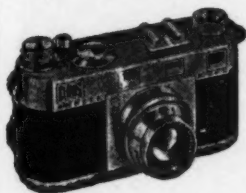
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THERE ARE MANY facets to modeling work.
Mayfield Bradley works with professional pho-
tographer Henry Gregg at a costume ball. May-
field took orders for pictures and kept track of
the negative holders. (*Quaker Photo*)

that in such a large classification as ama-
teur camera fans, there should be some
who place a figure modeling group in the
same class as the local burlesque house.
Moreover, in a photographic set-up such
as a club studio night, a model can be
lighted and positioned correctly for only
a small angle of view. Therefore if shut-
ters are going to click from all corners
of the room, a large proportion of the
shots are almost certain to be unartistic.
Most figure models know this and the
Guild girls insist that only a few photog-
raphers make exposures at the same time.

Photographers, both amateur and pro-
fessional, who contact the Guild for the
first time and request a figure model, must

What d'yuh say, Frankie, win, place or show?



come to Guild headquarters in person and present the proper sort of credentials. The Guild has a standard parry for phonics who insist on making arrangements over the phone and refuse to come in and be identified. "How about a male nude?" As they point out, a well formed male body has allied symmetry and skin texture to a female. Incidentally, a lot of amateur study groups are discovering this fact and the call for male nudes is on the upswing.

Figure work, good in both taste and technique, are actually an asset for a model; a lot of bad sex shots floating around town can be harmful. In all phases of photography and especially in figure work, the element of tact enters constantly. It is not only in the suitability of the finished picture to the subject, but also in the relationship between the photographer and the model. The Guild feels that there is a growing maturity on the part of both photographers and subjects. As the result of mutual respect they are becoming better able to work together to create, through the medium of the camera, sincere artistic work.

Originally organized for photographic work, the Guild now takes assignments for fashion, convention and other types of modeling. The growth in number and size of pay checks is a pleasant index of their success, but also gratifying is the fact that their efforts to bring new standards of dignity and respect to the modeling profession are being recognized locally.

The contribution any well organized models' guild can make to photography in any community is tangible. For the professional photographer, guild members can bring new freshness and life to fashion and assignment work. For the amateur, availability of well-trained models means that he can spend more time on the composition of the actual photograph instead of trying to create mood and expression in subjects who have no understanding of his aims. To both professional and amateur photographers alike, willing, intelligent models mean better pictures.



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LAST WORD

(Continued from page 10)

Calibrated Scale

Sirs:

Since most imported cameras are calibrated in meters, I thought it might be helpful to fellow readers to have a conversion table in American measurements. I suggest making duplicate copies of the following table and cementing a copy on the back of the carrying case as well as on the back of the camera.

1 meter	3'3"
1.2 "	3'9"
1.5 "	4'10"
1.7 "	5'6"
2 "	6'6"
2.5 "	8'
3 "	9'9"
4 "	13'
5 "	16'3"

Denver, Colo.

HARRY G. SMITH.

Bromide Postcards

Sirs:

In your "Jack Of All Trades" article (Jan., 47), we noted a paragraph concerning the printing of bromide postcards. Can you inform us as to the names and addresses of the manufacturers who produce equipment for printing, fixing, washing, and drying bromide postcards for commercial use?

Nice, France.

EDITIONS "WILCO."

• Producers of this equipment are: American Photographic Appliance Corp., Greenfield, Mass.; Eastman Kodak Co., Rochester, N. Y.; Kryptar Corp., 38 Scio St., Rochester, N. Y.; Pako Corp., 1010 Lyndale Ave., Minneapolis, Minn.—Ed.

Better Camera—Better Picture?

Sirs:

Why Andre De Dienes? Why the Fred Archer School, etc.? These are nearly all high-priced camera pictures. What we fellows who could never afford the Speed Graphic, Roliflex, Contax, Leica, etc., want are articles like Gordon Conner's (June), Joe Munroe (Feb.), Shep Shepherd (any time), Don Nibbelink (Dec., '46). I like to see these top-notch pictures once in a while, but how about a few months of real everyday shots by fellows with the cheaper grade cameras?

I spent a day at the Philadelphia Zoo, and my wife and I counted over sixty-five cameras and here is the score: Box cameras, fifty-seven, average \$4.00 to \$6.00; folding cameras (roll type), average \$10.00 to \$60.00; one Speed Graphic (God knows how much); two Leicas and accessories, approximately \$400.00 each. I had a chat with a number of these people and am glad to say they all know about MINICAM. Therefore I suggest you do something about these box camera folks, or cameras that cost up to, say, sixty or seventy-five dollars.

MALACHI M. MCGINNIS, Sr.

Philadelphia, Pa.

El Paso Slant on Argus

Sirs:

We had a big discussion last night about which camera gives a beginner best results if he had to choose between an Argus C-3 and an Argoflex 1. Nobody was hurt but I am sending you the results of our confab.

The essential difference, of course, is between a 35mm minicam in which you see the picture you will snap through a small viewfinder, and a 2¼ x 2¼ minicam in which you focus your picture on a ground glass the same size as your negative.

Here are the apparent differences:

C-3 Argus
F:3.5 to F:18

Argoflex 1
F:4.5 to F:18

This is a nice range, although quality of the lens has small relation to the F's available on the camera. Both these lenses are "coated" and of equal quality. Whether the "coating" is worth the money to the average amateur, or merely a means of tacking \$5.00 to the price of the camera, is a moot question. The additional value it gives will not, in my opinion, be noticed, save by the scientist.

Shutter

1/10, 1/20, 1/30,
1/50, 1/100, 1/200,
1/300, and Bulb.

1/10, 1/25, 1/50,
1/100, 1/200 and Time
and Bulb.

In the C-3 you cock the shutter before shooting. Speeds like 1/10, 1/20, 1/30 are to me like bright work on automobiles: they impress your friends but don't make the car drive smoother or faster. The important speeds are 1/50 through 1/300 plus Time and Bulb. Both cameras have a place for a cable release.

Film

Uses 35mm film, costing \$1.08 a roll in black-and-white and \$4.70 in color. Contains 36 exposures. Contact prints are too small to enjoy. You blow up anything you really like.

Shoots 12 exposures costing 32c in black-and-white; or 9 exposures in color at \$1.65. The film size is large enough for snap shot albums. Only 12 exposures on a roll is a disadvantage.

Focusing

Turn knob and look into range finder. Then look into view finder for the full picture you will get. Focuses like a Leica.

Turn knob and look into ground glass. Magnifier lets you focus sharply. Ground glass focusing makes it easier to compose.

Depth of Field

No scale on the C-3.

An easily read depth of field scale.

Weight

1 lb. and 11 ounces. A heavy camera.

1 lb. and 4 ounces.

Flash, etc.

Very easy to attach. No neck strap or place for same.

There is a Weston film scale to help you remember the film you are using.

Not so easy to attach.

Comes with neck strap and place for same.

My conclusions are that any beginner can do better with a camera in which he can focus on a ground glass. The Argoflex costs about \$8.00 more, being around \$62.00. The very ease of shooting with a C-3 and the relative cheapness of the film tends to make the beginner a careless shooter.

Anybody disagree?

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AXEL'S ANGLES

(Continued from page 96)

impacts and capable of coordinating them with your photographic experience, along with a reasonable background of good taste. Our illustration has a pleasing visual impact, brought about by few tones—black, white and some middle tones. The



SANDI BURPEE

girl is holding a sheet of rubber material and the distortion effects vary with the tension on this material as well as the lighting. If you want to be subjective about the picture—it is easy to see how the individual is distorted when in conflict with an unfamiliar environment.

Sun Pattern: A meticulous study of a static subject, a type of photographic exercise that would do most of us a great deal of good. Notice the careful balancing of the small doorway with the large one, the vertical pattern complimenting the diagonal pattern of light and shadow on the steps. The lower right corner should have been just a shade darker. The reproduction cannot do justice to the beautiful quality of the print. The shadows are deep and rich but full in detail. The high-

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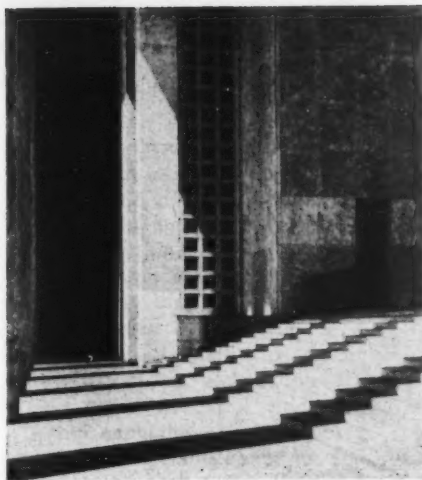
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17mm F2.7 Wollensak W. A.	...	54.42
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ERIC FRANKS

lights are brilliant, at the same time maintain detail. The picture was made with a small camera and the verticals carefully straightened in making the enlargement.

Ear: Stop-look-listen aptly applies to this picture—and should be used as a yardstick for all pictures. Any picture should stop you, cause you to look and explore it and create emotional association

FRED FRATER



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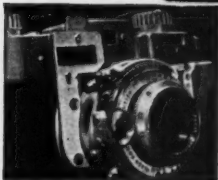
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Reducing Roll Film Curl

Roll film sometimes curls up so that centering it over the mask or in the negative carrier is made difficult. Breathing on the emulsion side of the negative will flatten it out temporarily—long enough to center it properly.

—John Stockwell.

CHECK YOUR FOCUS

(Continued from page 74)

ability to judge distance. If you've never actually tested your distance-judging ability, you should. Place your camera on a tripod, a table, or the ground, and mark the spots you judge to be 4, 7, 10, 20, feet etc., in front of the lens, then see what a tape measure has to say about your estimates. If you are more than a few inches off on short estimates, or more than a couple of feet either way on long ones, you need judging practice. Choose some object that you can use as a standard—a six foot man, a seven foot door, a nine foot rug—anything the height of which you can visualize accurately. Then, when you have a subject before your camera, judge the distance according to how many times the familiar object could be fitted into the intervening space.

Oftentimes in making flash pictures where the room light is dim, rangefinder focusing and ground glass focusing is difficult. There are several ways to overcome the lack-of-light obstacle. One way is to estimate or measure the distance between the lens and subject, and then find a bright object such as a lighted lamp the same distance away in a different direction. After focusing on the lamp, you can swing back and shoot your subject by flash illumination. Another way is to have a subject hold a lighted match for you to focus on. If the room is so dark that you can't tell which part you are getting in focus, have someone hold a lighted match at either end of the area you wish to include.

Focusing For Portraits

When making portraits at wide apertures, the easiest parts of the face to focus on are the eyes and the teeth. Both have sufficient contrast and brightness to serve as reliable targets, and for conveying ex-



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EYES AND TEETH are about the best focusing targets. You'll need plenty of light for hand-held shots—better to have a sturdy tripod.

pression it is essential that they be in sharp focus. If either must be a little out of focus it is usually best to let it be the mouth, because catchlights in the eyes that are even slightly fuzzy are quite noticeable.

Close-ups and Copy Work

When working with bellows extension or long extension tubes for extreme close-ups, the slightest change in camera position makes it necessary to adjust the lens considerably in order to sharpen the subject. A much easier and quicker method is illustrated below. The watch face, which is being photographed, is fastened to a box supported by a couple of books. After extension tubes of the desired length have been fitted on the camera, focusing is accomplished by moving the subject to and from the camera. If you have ever tried moving the camera and tripod a



fraction of an inch at a time while keeping the lens in line with the subject you will appreciate the simplicity of this method.

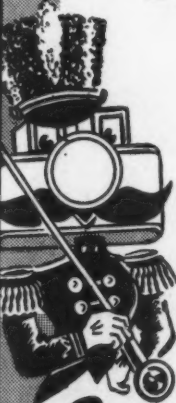
To help make copying photos, paintings or drawings easier, invert your copy whenever possible so it will show right side up on the ground glass. Whenever possible, the lens should be stopped down slightly to insure reasonable depth of field. F:8 will assure sharp enough focus for most occasions.

Checking Your Enlarger

If the images in your negatives are sharp, but you get fuzzy images in moderate enlargements, finding the source of the trouble will not, as a rule, be too difficult. If you have no ready-made focusing target for your enlarger, you can easily make one by scribing a network of criss-crossing lines on a fogged negative (or any discarded negative) with the point of a fine awl. Place the test negative in the negative carrier of the enlarger and focus it upon the enlarging easel. Use a magnifying glass to check the lines for sharpness. If portions of your inscribed images are out of focus, check to see that:

- (1) the negative lies flat in a glassless carrier without buckles;
- (2) that the glass plates in the other type of carrier are clean and without dull or scratched areas;
- (3) that the negative carrier, lens, and enlarging easel are parallel;
- (4) that the lens elements are not loose or the mount wobbly;
- (5) that the enlarger is rigid and does not vibrate during an exposure;
- (6) that the rack and pinion or other adjustment device does not "give" after it has been set for an exposure;
- (7) that the enlarging bulb or other illuminant is the right size and in the recommended position; that the lens you are using is of the right focal length for your enlarger. In nine out of ten cases, the underlying cause for fuzzy images produced in enlarging is so easily remedied that only a slight adjustment is required to make an old enlarger work like new.

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NAMES MAKE NEWS

(Continued from page 31)

When this is the case Sweet usually employs a "stunt" shot to remedy the problem. Not long ago, when he received an assignment to secure a picture of Henry Wallace talking over the telephone, he really had his hands full until he suggested Wallace actually call up a friend. Wallace obliged, and the result was a natural-looking portrait.

Sweet always carries a small make-up kit with him on each assignment which he uses only in emergencies. He had a rather pleasant experience with this piece of his equipment recently when he photographed Ingrid Bergman on the set of "Joan of Lorraine." Miss Bergman appeared in her armor costume with make-up on her face, but none on her hands. Sweet immediately grasped the situation and held hands with the lovely actress—at least while he applied the make-up. Another time he used the kit to repair Paul Whiteman's famous mustache which the maestro had nicked when his electric razor slipped prior to the sitting.

Sweet can relate many interesting anecdotes regarding his experiences with the famous. He can tell you, for instance, how Bernard Baruch brought along someone to talk with during the sitting in order that a more natural-looking portrait be made, or the time he photographed Bob Feller and was so close to the pitcher that everytime he threw a ball the camera lens was sprayed with perspiration.

Sweet takes just as much interest in photographing an unknown face as he does a famous one. He never uses a professional model, and many times stops total strangers on the street when they appear to be the right type for a specific cover assignment:

When he conceits an idea for a cover, or receives an assignment, he jots down all the particulars of the illustration in a little black book, and even writes a brief character study of what he considers to be the ideal model for the occasion. Then, with

specifications in black and white, he begins the sometimes long and arduous task of finding the proper face to fit the idea.

"I'm always on the alert for a good model," he explains. "When I spot one—no matter where it is—I rush over to explain who I am and what I want. At least nine out of ten are happy to oblige."

As a result of his model policy Sweet's cover and poster illustrations have the faculty of painting a crystal-clear picture of America at work and at play. If he wants a picture of a girl playing tennis, he finds the type of girl he wants who knows how to play tennis. The resulting picture is a true rendition of the original picture idea, and therefore highly salable and pleasing.

Equipment

Sweet's station wagon is generally loaded to the hilt when he is picture-bound. His equipment inventory includes two Rollei-flexes—(one always loaded with color film the other black and white film)—two 4x5 Speed Graphics. He owns a 4x5 Series D Graflex with an automatic diaphragm built-in, an Ansco 8x10 view camera which he uses on location jobs as well as in his Connecticut studio. Sweet believes in simple, sturdy wooden tripods and presently uses a standard motion picture tripod with his 8x10 view camera. He uses blue flash—all sizes—and speedlights on most jobs—and has invented his own screw-tight contact system for multiple flash instead of wipe contacts. He calls it "Multi-sureflash"—has a patent and plans to place it on the market in the near future. On outdoor assignments he frequently uses large flat tinfoil reflectors. He uses wide seamless paper—all colors, as backgrounds—he has so many props in one end of his studio that it looks like an antique shop, and files showing the exact location of many and varied outdoor settings, farms, rail fences, beautiful lakes, flower gardens, old churches, etc., etc. Sweet's most important prop is an old leather chair in which he always sits to think out and plan ideas.

Ozzie Sweet is a hard-working photographer who wants nothing more to do with

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a job after the exposures are made—he hates darkrooms—almost as much as he hates to get up in the morning.

Data on the Accompanying Color Pictures

PAUL W.—(Blue flash with G. E. No. 3s)—Camera, Rolleiflex; film Ansco 120 daylight. Four lights, top—high Paramount, fill-in front, and background, all synchronized. Shutter 200th at F:8—lights in close—it being a close-up, can then use a faster shutter speed getting more candid action and expressions. Twelve exposures were made—actual shooting time about 10 minutes.

DR. EINSTEIN—(Blue flash used G. E. No. 2s) camera—4x5 Speed G. film Ansco daylight—Two lights, top, distant fill-in and extremely high side light—to give the feeling of natural study lighting. All synchronized. Shutter 100th at F:11—five exposures were made—long intervals between each—because waited for right expressions and gestures.

RIVETER catching hot rivet—taken with Speed G. Blue flash (G. E. No. 3s) used four extensions and one flash on camera—500th at F:4.5—Ansco daylight color film—three exposures were made—taken high above the street with limited working space.

Cooling Darkroom

Keeping the darkroom at the proper temperature during the fall and early winter months is often a problem, particularly if the furnace has been turned on and the rest of the house is unusually warm.

This problem can easily be solved in all darkrooms equipped with running water. Place an electric fan by the edge of the sink in such a manner that the air is forced over the surface of the sink. Then turn on the cold water and allow it to run throughout the period you are working in the room. The current of air passing over the cool surface of the sink will keep the darkroom at a reasonable temperature despite higher readings in adjoining rooms—Duane Featherstonhaugh.

Protecting Safelight

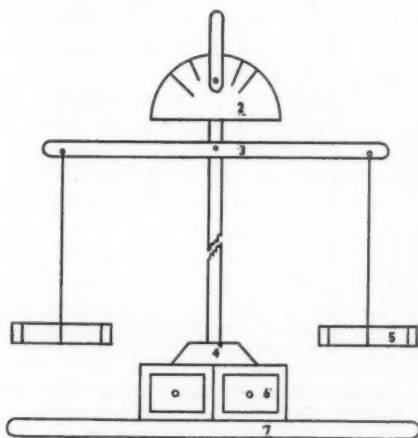
When you turn on the white light in your darkroom for any considerable length of time, turn off your safelight. Although the saving in electricity is negligible, you may prevent breakage to the glass or plastic filter from the heat of the bulb, especially if you are using a bulb larger than the one recommended.—John Stockwell.

DARKROOM BALANCES

(Continued from page 68)

the pans, and provide lips for soldering the corners. The pans are best shaped over a block of wood cut to the right size, using another block of wood for bending the rims. A hammer or pliers should not be used, for they will dent the tin.

Suspend each pan by about ten inches of $\frac{1}{16}$ " wire bent double, inserted through the end holes in the beam, and joined together beneath each pan in a smooth twist splice. The wire may be shaped to any desired form with the fingers. Pan corners may be soldered at the same time the wire suspensions are soldered to the pan bottoms.



OVERALL view of the scale. The dial (2) is made of cardboard. The crossbeam (3) is suspended from the gooseneck upright. The housing for the base of the gooseneck (4) is made of pieces of cigarbox. Pans (5) are made of tin, suspended by wire. Drawers (6) are made of matchboxes and hold weights. The base (7) is a board 10" square.

At this point it is again a good idea to test the balance of the combined beam and pans. Minor unbalance can be corrected by the use of additional solder on the bottom of the lighter pan. This solder provides material with which to scrape

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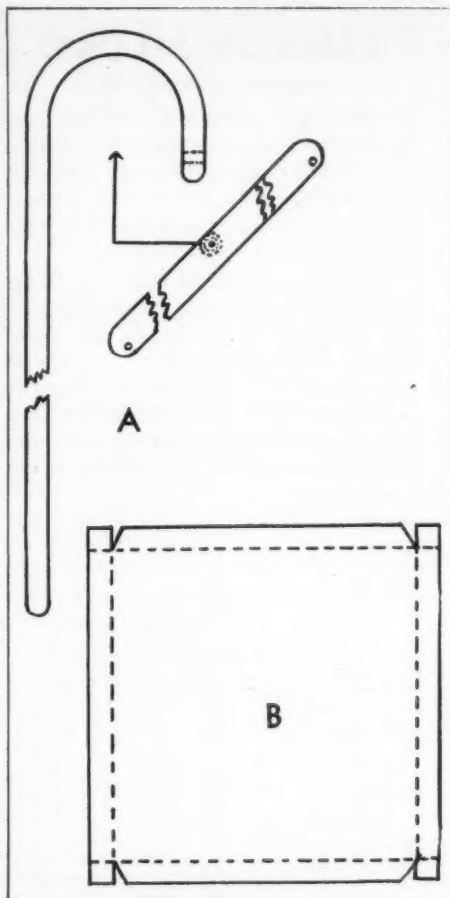


FIG. A. Gooseneck upright with 1/16" hole drilled in place for suspending cross-beam. Crossbeam has 1/16" holes drilled in center and at either end. Dial pointer is 1/16" soft wire with an "eye" in one end which is soldered over center hole in crossbeam. Fig. B. Weighing pans are 3" square, cut from tin as shown, and soldered together at the ends.

the set of balances into perfect balance as a final step.

All that remains to be done is to construct the gooseneck support housing, which will also house the matchbox drawers. The housing is made from odds and ends of cigar box wood cut to fit the match boxes snugly. A 3/8" or 1/2" thick wood button drilled 3/16" for the gooseneck and glued atop the drawer housing

adds stability to the gooseneck.

Before final assembly of the balances, make an "eye" in a short length of the $\frac{1}{16}$ " wire and spot solder it around the center hole of the beam on the inside. This will form the pointer hand when bent inward toward the gooseneck and upward so that it is protected from damage under the loop. A small cardboard dial is attached to the long arm of the gooseneck toward the top, as illustrated. When the pans are in perfect balance, the indicator hand is set at the zero mark on the dial.

Weights used for this set of balances consist of coins. The approximate weights in avoirdupois are given for convenience. Conversion tables to metric weights are usually to be found in inexpensive formula books at photo supply stores.

A dime weighs 40 grains

A cent weighs 48 grains

A nickel weighs 80 grains

A quarter weighs 100 grains

A half dollar weighs 200 grains

A dollar weighs 400 grains.

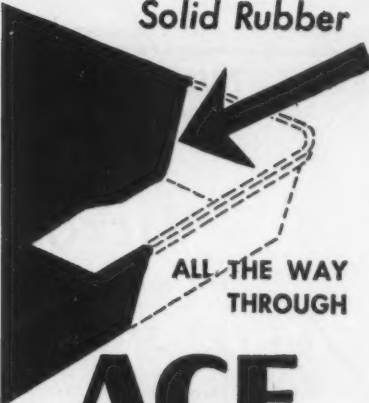
One silver dollar and one cent therefore weigh approximately one ounce avoirdupois. It will also be found that eight of the former blue ration tokens balance a dime and therefore weigh approximately five grains. By halving one token and balancing one half against the other, a very close approximation to two grains is obtained, which is closer than photographic work ordinarily requires.

If carefully assembled, these balances will be found sensitive to a change of weight of a piece of typewriter paper three quarters of an inch square. This type of weighing device is used almost universally in assay offices for the weighing of precious metals.

Accurate Weighing

For best results, a chemical balance should be used on a perfectly level surface. This is seldom achieved but great accuracy may be maintained by doing the following: Find a suitable place for the scale and adjust the set screws for perfect balance. Then put a couple of pencil marks or small brads in the table around the base of the balance. Whenever you use the scale, always place it in the position marked on the table. — *John Stockwell.*

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PARIS IS PEOPLE

(Continued from page 66)

"When this collection of photographs was taken, Paris was at peace, France was moderately prosperous, the world was drifting. Of all the cities in the world, Paris was the most restful, and again will be. . . The men fishing in the Seine, as individuals, may have died of hunger, or in action against the enemy, or as guerrillas, or of discouragement or disease. Others are taking their places and, no matter what hardships are imposed on them now, find the same need of a quiet afternoon, the same impulse toward simple pleasures, the same wit and humor, the same stamina, as the fisherman portrayed by Mr. Henle."

For those who like to bring their notebook data up-to-date, here are the simple facts. The book—about 10 x 13, has sixty photographs taken over a three week period during a visit. Altogether, some 500 shots were taken from which the sixty were selected. A Rolleiflex was the main standby, with a Primaflex pinch-hitting for the portraits. Film: Ansco Supreme, developed in DK 20. Prints: Kodabromide F2, developed in D 72. Exposures: approximately F8-F11 at 1/100th second.

There is much to be learned from the pictures in "PARIS," both technically and reportorially. No doubt Fritz Henle's training as indoor and outdoor fashion photographer for some of our best magazines equipped him with that "perceptive eye." His travels around the world have no doubt further sharpened his perception and, like Cartier-Bresson, he rarely goes anywhere without at least one camera tagging along . . . even at night. There is something of a parallel here to the story of still another photographer, on assignment in Europe. When asked what he did for amusement in the evening after each day's work, the response was, "Oh, I just expose a bit longer!"

FOOTBALL CAMERA TECHNIQUE

(Continued from page 50)

be employed because of much greater distance to the subject.

Football action can be safely "stopped" at 1/600 to 1/700 of a second. These shutter speeds will as a rule stop everything. Occasionally it will not stop the players' feet; however, a little blur at the feet is sometimes commendable, for it lends a feeling of action that might otherwise be lacking. You can find charts telling what speeds can be used when the action is at various angles to the camera. These speeds are all right when the action and camera angle can be planned in advance, but rarely will you find them practical to follow when trying to cover every phase of action in a football game. When light is unusually strong, 1/800 to 1/1000 of a second may be used to "freeze" the action. I recommend that these highest speeds only be resorted to when a brilliant sun permits using a reasonably small F: number to preserve the precious depth of focus. Along this same line, it is considered good practice to use a film with a fast emulsion speed. The faster the emulsion speed of the film, the greater the probabilities for smaller F: numbers.

Shots taken at distances greater than

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thirty-five feet are poor because of the small image—unless you are using a long focal length lens. Occasionally, when the ball carrier is running toward your side-line, you will get an opportunity for a closer shot than average. It is strongly advised when this happens to take your picture when the action is about twenty feet from you, then clear out of the players' way for safer territory. Speaking of steamrollers, don't set any of your equipment on the ground for as sure as you do the play will come right on top of you. Needless to say, the players don't wait for you to pick up your equipment.

Be careful to keep your mind on getting pictures. Don't get too absorbed with the game, or you will miss the best pictures of the day—it never fails! Actually it is necessary to try to outguess the defensive team. In other words, try to keep one jump ahead of the action so you can always be on the spot when the most interesting shots materialize.

Don't waste film on shots wherein the ball is not visible. You can't sell them to anyone! The first point of interest when viewing football pictures is the ball, action is secondary. Actually they go hand in hand—one is no good without the other.

Finally, follow the rules for photographers at football games.

(1) Stay within the zones provided for you. At most football contests the photographers are permitted on both sides of the field and behind the end zones, but are not permitted between the two thirty-five-yard lines. In other words the shooting must be done from the thirty-five-yard stripes to the end zone.

(2) Don't get between the two poles of the ten-yard chain held by the linemen.

(3) Stay off the playing field during the game.

(4) Respect the rights of the other photographers—remember they want a picture too!

(5) Be sure you have the proper identification and authority to be on the sidelines.

Now you should be ready to try your luck. Why not try shooting the next local High School game?

Let's Photograph Kids Naturally

(Continued from page 45)

careful to look for the pleasant combinations of highlights and light and shadow that produces modelling. Sometimes you have to do a little searching to find the right spot, but the results are rewarding.

Posing Problems

In posing, small fry just have to be put to "work" doing something pleasant or familiar (or both), even if it's only resting over Mother's shoulder in a "burping" position for a "formal portrait. You can give them the freedom of a carriage, a play-pen or a sand-box and then hover around with your camera, ready to catch appealing moments. Here is where a little playful attention, a little applied psychology by parents, can be a big help.

Older kids know what you're up to and are liable to be self-conscious and too anxious to *perform* for you. Sometimes their naive notion of posing is entertaining in itself, but generally it is best to get Mother or Dad to distract them.

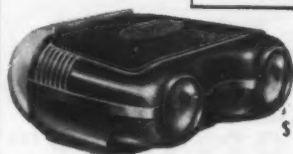
All the speed possible, consistent with the often not-too-brilliant lighting, is necessary. View cameras and tripods are practically ruled out. You need a hand-held box. My choice happens to be a twin-lens reflex ($2\frac{1}{4} \times 2\frac{1}{4}$) because it provides a clear view of the subject and a negative large enough to maintain good quality with enlargement.

Indoors, a lens of F:3.5 or F:4.5 used wide open is usually necessary. Your shutter speed will have to be as slow as 1/50 or 1/25 (with the fastest film such as Super XX or Super Pan Press). To my way of thinking, this is slow for a hand-held camera and requires some extra attention in keeping the camera steady.

Exposures

You've often been told to hold your breath when you snap a picture at these speeds—that takes care of movement from expanding and contracting lungs.

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My experience is that you should take care of your *heartbeats*, too—odd as it may sound. Count to yourself 1-2-3, 1-2-3 so that the 3 comes between beats, and always squeeze the shutter on a 3. I found I could considerably increase the sharpness in my photos by synchronizing my slow shots with my pulse. If there is to be movement, let it be the kid's, not the camera's.

Focusing has to be accurate. Since you won't have much depth of field to spare with the wide-open lens, you'll have to keep adjusting your focus for the child's eyes.

Outdoors, even in shaded areas, the chances are that you will be able to shoot at 1/100 or 1/200. By all means shoot at 1/200 or faster if possible; you may have to open your lens to F:6.3 or F:5.6 and pay extra attention to focusing, but you will get more and better portraits with fast shutter speeds.

Wasted film is something to be expected in taking pictures this way because there is a good deal of "catch as catch can" involved. You won't have much time to judge whether you have a masterpiece before pressing the button. If you get one masterpiece on a roll (at first, anyway), count yourself lucky and be content to stick the rest of the shots in your album for the record.

Unfortunately, many — sometimes I think most—doting parents have yet to be "educated" to *informal* children's portraiture. It's downright discouraging to the photographer, amateur or otherwise, to have a mother turn thumbs down because a ribbon is not "just so" or a mouth is wide open (even though in human, hearty laughter). As I see it, pretty posed pictures are often intrinsically lifeless and uninteresting. To me, a good shot should not only show what a child looks like, but should, if possible, have enough life in it to be worth a glance by someone outside the family. In short, I'm all for a revolution if need be—anything that will swing the vogue in child pictures towards the pursuit of the genuine, spontaneous and natural.

Homemade Enlarger

(Continued from page 41)

film and returned to the bench it can be put in the same position. This is rather important as the room is in total darkness.

This unit is the author's complete darkroom with the exception of a small closet which is used in the daytime to load a daylight tank. During the past two years it has proved to be very valuable and its all-around versatility plus appearance—which even satisfies his wife—has fulfilled every expectation.

The following list is an index of the parts as they appear in the various illustrations of this article.:

- | Key No. | Part |
|---------|-----------------------------|
| 1 | ¾" floor flange |
| 2 | ¾" pipe with running thread |
| 3 | Nut—¾" |
| 4 | 1" pipe |
| 5 | 1x1x¾" reducing tee |
| 6 | Drawing board |
| 7 | Washer |
| 8 | Nut—¼" |
| 9 | ¼" Flat Head stove bolt |
| 10 | 1" pipe tee |
| 11 | 1" floor flange |
| 12 | 1" 90° elbow |
| 13 | 1" close nipple |
| 14 | Lamp house |
| 15 | Bolt—¾" |
| 16 | Washer—¾" |
| 17 | Nut—¾" |
| 18 | Porcelain socket |
| 19 | Light bulb |
| 20 | Receptacle |
| 21 | Safelight glass |

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SALONS AND EXHIBITS

★ FOLLOWS P. S. A. RECOMMENDED PRACTICES

Closing Date	Name of Salon	For Entry Blank, Write to	Number of Prints and Entry Fee		Dates Open to Public
Exhibit to see	★Fourth Chicago International Color Slide Exhibit				Chicago Historical Society, Chicago, Ill., Sept. 30-Oct. 3
Exhibit to see	★Seventh Annual Victoria International Salon of Photography.				Empress Hotel, Victoria, Canada, Oct. 5-12
Exhibit to see	Twenty-second Annual Salon of Photography.				Museum of Fine Arts of Houston, Houston, Texas, Oct. 5-19
Exhibit to see	★1947 P.S.A. Exhibition of Photography.				Art Center, Oklahoma City, Okla., Oct. 8-31
October 11	★Ninth Annual Salon of Photography.	J. Paul Wurtz, Salon Chairman, 810 South Governor St., Evansville, Ind.	4	\$1.00	Evansville Public Museum, Evansville, Ind., Oct. 9-Nov. 2
October 14	★Mississippi Valley Salon of Photography.	Norman Brice, Salon Chairman, 51 Ridgemoor Dr., St. Louis 5, Mo.	4 prints and/or transparencies	\$1.00	Missouri Historical Society, Jefferson Memorial, St. Louis, Mo., Oct. 26-Nov. 9
October 14	★Eighth Annual Vancouver International Salon of Pictorial Photography.	Mrs. May Hunter, Salon Chairman, 8619 Montclair St., Vancouver, B. C., Canada.	4	\$1.00	Vancouver Art Gallery, Vancouver, Canada, Nov. 4-23
October 15	★Fifth Annual Kootenay Photographic Salon and Art Exhibit.	Robert Gray, Salon Chairman, P. O. Box 35, Trail, B. C., Canada.	4 prints and/or transparencies	\$1.00	Masonic Temple, Trail, B. C., Canada, Oct. 28-Nov. 1
October 15	★Thirty-eighth Chicago Camera Club Salon.	Chicago Camera Club, 137 N. Wabash Ave., Chicago 2, Ill.	4 prints monochrome and/or color	\$1.00	Chicago Camera Club, 137 N. Wabash Ave., Chicago, Ill., Nov. 2-30
October 28	★Ninth Atlanta Salon of Photography.	Mrs. Geo. T. Bird, Chairman, or Mrs. Hal Drake, Secretary, 685 E. Morningside Drive, N. E., Atlanta, Ga.	4	\$1.00	High Museum of Art, Atlanta, Ga., Nov. 15-30
November 8	★Eleventh International Salon of Photography.	Harvey A. Scholz, Salon Chairman, 926 N. Plankinton Ave., Milwaukee 3, Wis.	4	\$1.00	Milwaukee Art Institute, Milwaukee, Wis., Dec. 7-27
November 11	16th Minneapolis Annual Salon of Photography.	George Johnston, Salon Chairman, 114 S. 5th St., Minneapolis, Minn.	4	\$1.00	Minneapolis Institute of Fine Arts, Minneapolis, Minn., Dec. 1-31
November 14	Little Midwest Horticultural Photographic Salon.	Griffith Buck, Chairman, Little Midwest Photographic Salon, Iowa State College, Ames, Iowa.	4 prints or transparencies	None	Iowa State College, Ames, Iowa, Nov. 15, 16, 17
November 15	★Sixteenth Detroit International Salon of Photography.	Evan R. Thomas, Salon Chairman, 18934 Woodward Ave., Detroit 3, Mich.	4	\$1.00	Detroit Institute of Art, Detroit, Mich., Dec. 21-Jan. 11
December 6	Thirty-first International Los Angeles Salon of Photography.	Lynton Vinette, Secretary, 843 N. Detroit St., Los Angeles 46, Calif.	4 monochrome or color sections	\$1.00 each section	Los Angeles County Museum, Exposition Park, Los Angeles, Calif., January, 1948
December 8	★10th Annual Springfield International Salon of Photography.	M. Louise Lochridge, Salon Secretary, The George Walter Vincent Smith Art Museum, Springfield 5, Mass.	4	\$1.00	The George Walter Vincent Smith Art Museum, Springfield, Mass., Jan. 2-22



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